ABSTRACT
        The Institute of Library Research (ILR) is a
statewide organized research unit of the University of California
(UC), affiliated with the School of Librarianship and UC Berkeley and
the School of Library Service at UCLA. ILR engages in studies of
operations for the entire UC library system and conducts varied
research and development projects in information science for outside
agencies. Although ILR traditionally emphasized computer applications
and other automated procedures for solving library problems, in 1971
the Institute broadened its outlook to embrace all library related
problems--work underway including problems of social needs,
production of library tools, investigation of library service needs,
and system analysis. This report contains abstracts of completed,
on-going, and proposed research projects, a list of ILR personnel,
and a bibliography of the institute's publications. (Author/SL)

INSTITUTE OF LIBRARY RESEARCH

UNIVERSITY OF CALIFORNIA

ANNUAL REPORT

July 1971 to June 1972

Editor:

Pepi Riveros

University of California
2907 Math Sciences
Los Angeles, California   90024

University of California
South Hall Annex
Berkeley, California   94720

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I. INSTITUTE OF LIBRARY RESEARCH
A Brief Description

Conceived in 1963, established in 1965, the Institute of Library Research is an excellent example of successful cooperation between faculty, students, and a professional research staff. As an organized research unit of the University of California, the Institute is affiliated with the School of Librarianship at UC Berkeley and the School of Library Service at UCLA.

Statewide in scope, the Institute of Library Research (ILR) engages in studies of operational problems for the entire University of California library system. ILR also conducts varied research and development projects in library and information science for outside agencies. As a result of these efforts, the Institute staff publishes papers and reports that aid other scholars in the field.

Traditionally, ILR has emphasized computer applications and other automated procedures for solving library problems. However, the Institute has recently broadened its outlook to embrace all library related problems. For instance, current work involves problems of social needs, production of library tools, investigation of library service needs, and system analysis.

The ILR staff consists of people qualified in mathematics, electrical engineering, physics, sociology, computer science, linguistics, and many other subject fields in addition to library science. Graduate students from many disciplines continually aid researchers in specific projects.

II. ADMINISTRATION

Mr. Charles Bourne was appointed Director of the Institute of Library Research in October 1971, after the position had remained vacant for an extended period of time. Mr. Bourne formally holds a joint appointment, dividing his time equally between the Institute of Library Research and academic responsibilities at the UC Berkeley School of Librarianship. He is also serving in a temporary appointment as Acting Director of the University-wide Library Automation Program.

Mr. Bourne's prior experience includes such activities as: assisting the National Academy of Sciences in their studies of national information problems; performing background studies for the National Library Commission; compiling a directory of federally funded research and development projects in the information sciences; evaluation of several abstracting and indexing services; and development of library costs and cost models. Mr. Bourne formerly worked at Stanford Research Institute as a Senior Research Engineer, served as Vice President of Information General Corporation, and was the senior member of his own organization, Charles Bourne & Associates. Mr. Bourne also served recently as President of the American Society for Information Science.

Mr. Bourne has assumed responsibility for the direct supervision of the Berkeley office of ILR, while Mr. Robert Carmichael continues to serve as Manager of the Los Angeles office.

Since Mr. Bourne's arrival, the Institute has contracted for five new projects and is in the process of writing several new proposals. We look forward to a busy year!

A. Projects Completed

ILR continued workir~ on many projects that had been started prior
to this reporting period. Several of these projects were completed during
this period and are described briefly below.

All publications resulting from Institute research are summarized
at the end of this report.

1. ORGANIZATION AND SEARCH OF BIBLIOGRAPHIC HOLDINGS RECORDS IN ON-LINE
   COMPUTER SYSTEMS

Principal Investigator:	Professor M.E. Maron School of Librarianship University of California, Berkeley
Project Director:	Ralph Shoffner Institute of Library Research University of California, Berkeley
Contracting Agency:	U.S. Office of Education
Duration:	Phase II extended into this fiscal year
Funds:	$309,873, Phase II

This project developed and implemented a research facility which was
used to investigate the problems of file organization and interactive
searches for on-line retreival systems. These systems accommodated large
files of bibliographic records in the MARC II structure format.

The project was completed on July 3, 1971, and the report was
distributed in December 1971.

2. INFORMATION PROCESSING LABORATORY FOR EDUCATION AND RESEARCH IN
   LIBRARY SCIENCE

Principal Investigator:	Professor M.E. Maron School of Librarianship University of California, Berkeley
Project Manager:	Don Sherman

Contracting Agency: U.S. Office of Education

Duration: 12/68-7/70, Phase II
                         Extended to July 1972

Funds: $341,763 (combined, Phase I and II)

Completed in July 1972, this project designed, implemented, operated, and evaluated a computer-based laboratory that assisted in meeting the instructional and research needs of library students. The work of the last year was devoted to the organization and writing of the final report.

3. OPERATIONS TASK FORCE PROJECT

Principal Investigator: Ra   M. Shoffner
                         Institute of Library Research
                         University of California, Berkeley

Contracting Agency: University of California

Duration: March 1, 1965 to June 30, 1972

Funds: Budgeted from year to year

This project was established to provide a state-wide agency for development of methods that would satisfy the needs of libraries on individual U.C. campuses while remaining suitable for University-wide applications. A major planning effort in 1969/70 resulted in the creation of the Library Systems Development Program which developed into the Library Automation Program (LAP) in fall, 1971. Task Force management and those functions concerned with system development and coordination were transferred to the LAP project.

During 1971/72 the Task Force Project supported ILR management by coordinating on-going projects and related studies. ILR at Los Angeles also conducted pertinent studies and supported UNCLSTAF activities.

4. LIBRARY ENVIRONMENTAL DESIGN: PHYSICAL FACILITIES AND EQUIPMENT

Principal Investigator: Professor G. Edward Evans
                         School of Library Science
                         University of California, Los Angeles

Co-Principal Investigators: Professors Peter Kamnitzer, Thomas Vreeland,
and Ralph Iredale
School of Architecture and Urban Planning
University of California, Los Angeles

Contracting Agency: J.S. Department of the Army

Duration: October 1, 1970 to October 31, 1971
Extended to December 31, 1971

Funds: $98,597, Phase I

This project resulted from discussions concerning the need for a full
scale study on designing and equiping library physical facilities.
Conceived as a joint effort of librarians and architects, the work was
carried out by the Institute of Lib ry Research and the Urban Innovations
Group at UCLA. Funds and administrative matters were managed by the
Institute.

Phase I of this Work Unit was completed December 31, 1971 by a project
staff of one investigator, three co-investigators, one consultant, one
full-time project assistant, and three research assistants. The results are
recorded in a Final Report that contains an evaluative state-of-the-art
review of current library building practices. Areas in need of further
research are identified and alternatives to present practices are suggested.

Phase II of this effort, as initially proposed to the contracting
agency, would require three additional years and would culminate in a
prototype of a guided inquiry system designed to take the user through all
the steps necessary for the successful planning and completion of a
required library facility. No plans exist at present to seek Phase II
as an Institute project.

B. **On-Going Projects**

The following projects will continue into the next reporting period.

1. **SEMANTIC FOUNDATIONS FOR QUESTION-ANSWERING SYSTEMS** (SEMQAS II, III)

Principal Investigator: Professor Harold Borko (Phase I, II)
John Olney (Phase II, III, IV)

School of Library Service
University of California, Los Angeles

Project Manager: John Olney

Contracting Agency: National Library of Medicine (USPHS)

Duration: 5/1/70 to 4/30/71 Phase I
5/1/71 to 4/30/72 Phase II
5/1/72 to 4/30/73 Phase III (Grant period 5/1/72 to 4/30/74)
5/1/73 to 4/30/74 Phase IV

Funds: $21,185 Phase I
$22,232 Phase II
$26,997 Phase III
$27,792 requested for Phase IV

The purpose of this project is to computationally derive linguistic
data to be used for foundational work on the semantics of languages suitable
for question-answering systems and for fact retrieval. The current goal
of this project is to obtain, from machine-readable transcripts of Webster's
Seventh Collegiate Dictionary and its pocket abridgement, data which can
be used to improve natural-language processors, especially as applied to
medical information problems.

Recent work (Phase I and II) focused on affixation with the objective
of completing a precise disambiguation of dictionary defining formulas which
correlate with particular affixes. One goal of this work is to enable affix-
stripping routines to predict the meaning effects of non-technical affixes
so as to provide appropriate semantic interpretations for the words formed
by them in at least some cases.

The next major effort (Phase III and IV) is a manual disambiguation of

the words functioning as syntactic heads of definitions, so that accurate generic hierarchies can be extracted from the dictionaries under program control. A largely manual disambiguation of the synonymous cross-references in both dictionaries will also be undertaken.

It is expected that the partitioning of the general vocabulary, achievable by virtue of our disambiguations, will facilitate the discovery of semantic features usable by question-answering systems aiming at large vocabularies. This phase of the work is expected to contribute to the refinement of both manual and automatic techniques of thesaurus construction.

2. DEVELOPMENT OF A CENTER FOR INFORMATION SERVICES PHASE II: DETAILED SYSTEM DESIGN. (CIS Phase IIB)

Principal Investigators: William B. Kehl (Phase IIB, III)
Director, Campus Computing Network
University of California, Los Angeles

Professor Robert M. Hayes (Phase IIA)
School of Library Services
University of California, Los Angeles

Co-Principal Investigators: Robert Vosper (Phase IIA, IIB, III)
University Librarian
University of California, Los Angeles

Professor Harold Borko (Phase IIB)
School of Library Service
University of California, Los Angeles

Robert L. Carmichael (Phase IIB)
Institute of Library Research
University of California, Los Angeles

Project Managers: Bruce Briggs
Campus Computing Network
University of California, Los Angeles

Peter G. Watson
University Library
University of California, Los Angeles

Contracting Agency: National Science Foundation
Office of Science Information Services

Duration: 7/1/69 to 12/31/70 Phase IIA (Continued to 6/30/71)
1/1/71 to 6/30/72 Phase IIB (Continued to 12/31/72)
7/1/72 to 6/30/73 Phase III (Continued to 12/31/73)

FUNDS:
<div style="margin-left:2em">

$208,400   Phase IIA (ILR)
$300,056   Phase IIB (CCN): ($35,807 budgeted to ILR-UCLA)
$300,000   Phase III (CCN)· ($21,000 budgeted to ILR-UCB)
</div>

Phase IIA of this grant initiat '   ,ment of a Center for Information Services on the UCLA campus. The Center provides a capability to acquire magnetic tape data bases of various kinds for the University Library.

Phases IIB and III were awarded to the Campus Computing Network when task emphasis changed to detailed program specifications and design, prototype development, and the offering of experimental data base services. The Institute continues to develop procedures and acquire data bases for the Center, and remains concerned with coordination, documentation, reporting, testing and evaluation, and user related problems.

The U.C. Berkeley campus will provide support for Phase III of this project, primarily in testing and evaluation. Also, services will be extended to the northern campuses.

3. U.C. UNION CATALOG SUPPLEMENT (UCUCS)

Project Coordinator:	Ralph M. Shoffner (until his resignation on April 1, 1972) Institute of Library Research University of California, Berkeley
Project Manager:	Allan ʸ ᵎmphrey Institute of Library Research University of California, Berkeley
Contracting Agency:	University of California
Duration:	1968 to 1972
Funds:	$1,253,896

This Union Catalog Supplement is a book-form catalog of all monographs processed by the cataloging departments of the nine campuses of U.C. during the period 1963 to 1967. The catalog supplements the book-form Author-Title Catalog of U.C. Berkeley and Dictionary Catalog of UCLA, published in 1963.

The UCUCS Project has resulted in many noteworthy accomplishments, including the largest catalog record conversion effort performed to date by any library and the largest computer-produced library catalog ever prepared. A bibliographic file of more than 800,000 unique catalog records in MARC-structure has been created on magnetic tape, as has a subject heading authority file and various other auxiliary files. An extensive body of software has been developed and tested for file conversion, file improvement, automatic editing, consolidation of duplicates, and formulation of catalog entries for photocomposition.

The expected delivery date for the printed catalog is February 1973. All these products will be available to outside organizations through either purchase or license agreements.

4. <u>U.C. BIBLIOGRAPHIC CENTER (BIBCENTER)</u> - Pilot Project

Project Manager:	Jay Cunningham Institute of Library Research University of California, Berkeley
Contracting Agency:	University California Library Automation Program
Starting Date:	April 1972
Funds:	$51,150

This new project will, as its first objective, automate catalog card production using records from Library of Congress (LC) MARC tapes. A facility of the University-wide Library Automation Program, the BIBCENTER will provide presorted card sets on request from the MARC data base. The cards will be individually customized to conform with specifications supplied by four participating campus libraries: Berkeley, Los Angeles, San Diego, and Santa Cruz.

The pilot libraries are contributing a significant amount of design work, computer time, programming, and other resources to the development of this project. The UCLA Research Library maintains the LC-MARC tape subscription used to build BIBCENTER's MARC data base.

After the establishment of LC-MARC operations, BIBCENTER plans to examine the feasibility of expanding its data base to include the approximately 800,000 machine records in the U.C. Union Catalog Supplement (1963-67). Titles not included in either the LC-MARC data base or the Union Catalog Supplement data base will be converted to machine readable form in a later stage of development.

BIBCENTER has a small staff comprised of programmers and librarians and is managed by Jay Cunningham. Students from advanced degree programs in librarianship, electrical engineering, and other disciplines are participating in the analysis and design of BIBCENTER services.

A special advisory and resource committee guides BIBCENTER policy and development. Present members are: Michael Berger, Head, Bibliographic Records, U.C. Santa Cruz; Margaret Capron, Catalog Department, U.C. San Diego; John Knapp, Head, Library Systems Office, U.C. Berkeley; and Esther Koch, Head, Cataloging Division, UCLA.

5. SURVEY OF LIBRARY AND INFORMATION PROBLEMS OF PRISON POPULATIONS

Principal Investigator:	Charles Bourne Institute of Library Research University of California, Berkeley
Project Manager:	Marjorie Le Donne Institute of Library Research University of California, Berkeley
Contracting Agency:	U.S. Office of Education
Duration:	April 1, 1972 to September 30, 1973
Funds:	$77,475

ILR is conducting a survey of library services and facilities available to inmates of adult and juvenile correctional institutions. Two-phased and national in scope ,the project will examine both Federal and State facilities. The study proposes to: 1) determine what library services currently exist for the inmates and staff of the nation's detention facilities, 2) identify problems of viewpoint, practice, and organization which limit the

capabilities of libraries, and 3) provide information needed to improve the library services to librarians and correctional administrators.

Phase I involves a review of published and unpublished documents as well as correspondence with involved persons and agencies. Phase II progresses to site visits at selected facilities and personal interviews.

In conjunction with this project, the Office of Education asked ILR to assume administrative responsibility for a related project, proposed by the American Correctional Association (ACA). ACA proposed that a seminar be held where persons of a variety of professional and governmental interests could examine various methods of providing prisoners with adequate access to legal reference materials, as determined by a recent Federal Supreme Court decision. ILR and ACA worked together closely in the preparation of the seminar.

ILR project manager, Marjorie Le Donne, and Margaret Hannigan of the Office of Education of H.E.W., co-chairpersons of the ACA Subcommittee on Legal Research Materials, surveyed state librarians on current practices in providing legal reference services to inmates. They compiled the results of the survey in an interim report and distributed it to seminar participants. The seminar, entitled Legal Research Materials for Offenders, met on May 22 and 23, 1972. From seminar deliberations guidelines for providing prisoners with these materials were developed and presented to the ACA Board of Directors for approval.

Ms. Le Donne's report at the ALA convention resulted in a request for ILR to prepare abstracts of court decisions pertaining to libraries in correctional settings. Graduate students of the UCB School of Librarianship will help in this work as they have in bibliographic searches and other aspects of the project.

The final products of this survey will be 1) a set of recommendations to improve existing services and 2) a handbook of both current practices and statistical data regarding prison library services.

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6. U.C. UNION LIST OF SERIALS (ULS)

Project Manager:	Fred Bellomy Library Automation Program University of California, Santa Barbara
ULS Editor:	Tom Hargrove Institute of Library Research University of California, Berkeley
Contracting Agency:	U.C. Library Automation Program
Starting Date:	April 1, 1972
Funds:	$3,000 4/1/72-6/30/72 – Budgeted year to year

In April 1972 ILR took responsibility for editing the Union List of Serials (ULS).

The project proposes first to bring together under one bibliographic entry each serial held in common by the nine U.C. campuses, plus any other participating parts of the University, such as Livermore, Rad Lab, etc. To do this, computer programs sort and compare the lists of serials exactly as put into machine form by each campus, and consolidate exact duplicate entries. Manual editing is used to bring together variants of the same entry, due to differences in cataloging, form of entry, transliterations, punctuation, spacing, or errors in keying. Students from the Berkeley School of Librarianship and part-time workers of ILR assist the editor in the preparation of linkages (or consolidations) and corrections to the Union List. It is estimated that combined machine consolidation and manual editing will reduce the present 100,000 entries to 80,000 unique titles. However, the addition of Berkeley's serials, the bulk of which have not yet been added to the list, will influence the final total.

Plans also exist for preparation of a file maintenance system that will aid the production of a second edition. This edition will include updated information about holdings and titles omitted in the first edition.

7. BIBLIOGRAPHIC DATA BASE CONVERSION FOR THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

Principal Investigator:	Charles P. Bourne Institute of Library Research University of California, Berkeley
Project Manager:	Jay Cunningham U.C.-BIBCENTER Institute of Library Research University of California, Berkeley
Contracting Agency:	California State Universities and Colleges (Library Systems Project)
Duration:	June 29, 1972 to June 30, 1973
Funds:	$ 3,500 Phase I $36,500 Phase II

Initiated at the very end of this fiscal year, this project will convert current monograph catalog recoi ⁻ . ɔ̠ chine-readable form. The Library Systems Project at the Stat⁻ University headquarters is collecting the cards from nineteen Califo⁻nia State University and College campuses to be sent to the Institute's new BIBCENTER service for conversion. MARC tape records distributed by the Library of Congress will be supplied when a match with a source catalog card is found.

Those records not in the LC-MARC tapes will be keyed on a selectric typewriter for optical scanning and converted to MARC format by programs written at ILR. This portion of the project is similar to the UCUCS project, but smaller in scale. All machine records will be proofread to obtain high accuracy. An estimated total of 60,000 cards will be processed by June 30, 1973.

The project divided into two parts. Phase I is a pilot study with the objectiⁿⁿ ⁿᶠ processing 2,000 catalog records. Phase II, which depends on successful completion of Phase T, consists of converting a continuing volume of records for the duration of the present contract.

8. PRELIMINARY INVESTIGATION OF PRESENT AND POTENTIAL LIBRARY AND INFORMATION SERVICE NEEDS

Principal Investigator: Charles P. Bourne
                                   Institute of Library Research
                                   University of California, Berkeley

Contracting Agency: National Commission on Libraries and Information Science

Duration: June 30, 1972 to January 1, 1973

Funds: $16,000

ILR will produce a document to assist the National Commission on Libraries and Information Science analyze and provide long range planning for information needs of the nation. The document will help the commission establish priorities and develop a national plan to answer these needs.

The scope of the work will include 1) identification of future (post 1975) needs and requirements for U.S. libraries and information services and 2) identification of present and potential user groups and their specific needs.

The development of specifications for future library service is not a simple task. Some major issues are: a review of pertinent current literature, a survey of planning methodology that would help the study, and a preliminary, tentative statement of the objectives of library service.

C. Proposed Projects

The following descriptions give a brief introduction to some of the project work being proposed to various organizations at the writing of this annual report. The wide scope of these projects indicates ILR's expanding range of interests.

1. SUPPORTING STUDIES AND TECHNICAL ASSISTANCE TO THE CIS PROJECT

Principal Investigator: Charles P. Bourne
                                  Institute of Library Research
                                  University of California, Berkeley

Submitted to: National Science Foundation, submitted through
                                    UCLA Campus Computing Network

Proposed Duration: July 1, 1972 to June 30, 1973

Requested Funds: $50,000

This ILR effort was proposed as a subcontract to the Center for Information Services (CIS), a project of UCLA's Campus Computing Network, funded by NSF. The work would expand the L.A. based CIS to include the northern campuses (Berkeley, Davis, Santa Cruz, and San Francisco) and other potential northern California users such as some campuses of the California State University System. ILR also proposed to review and evaluate other organizations' methods for providing selective dissemination of information.

Finally, the Institute plans to perform an independent evaluation of CIS and provide a mechanism for continuous evaluation. Data relating to users, products, and operations of the Center for Information Services will be collected, analyzed, and summarized in a project report.

2. SURVEY OF THE ERIC TAPE SEARCHING SERVICES IN SELECTED U.S. FACILITIES

Principal Investigator: Charles P. Bourne
                                    Institute of Library Research
                                  University of California, Berkeley

Project Manager:	Allan Humphrey Institute of Library Research University of California, Berkeley
Submitted to:	U.S. Office of Education, subcontracted through Stanford University
Proposed Duration:	September 1, 1972 to February 28, 1973
Requested Funds:	$25,000

In February 1972 the Institute of Library Research submitted a proposal
to study util zation of the computer bibliographic tape services offered
by the U.S. Office of Education's Educational Resources Informatjon Center
(ERIC). The Institute will make two evaluatirns of organizations that use
the ERIC computer tapes to serve their educational community. The first
review will be general in nature, taking into account the operational setting,
the type of hardware and software used, characteristics of the user population,
and the volume of the service. Four or five facilities will be identified
as exemplary and these will receive a more detailed analysis.

In conjunction with the above work, ILR will develop a survey form
(or an inter-iew guide) and a reporting format for each task. The Institute
will prepare comprehensive reports describing the results of these studies.

3. NATIONAL PLAN FOR LIBRARY NETWORK AND INFORMATION SERVICES IN YUGOSLAVIA

Principal Investigator:	Charles P. Bourne Institute of Library Research University of California, Berkeley
Project Manager:	Borut Dekleva Institute of Library Research University of California, Berkeley

This proposal represents an attempt to 1) help plan and coordinate
the library services for the six states of Yugoslavia; 2) help introduce
computer techniques to their library systems; 3) help plan a training
program for the introduction of technology into their library operations.

In June, Mr. Dekleva visited Yugoslav libraries in an attempt to
assess their activities. He is currently doing the preliminary planning

for a conference to be held in Yugoslavia in the summer of 1973 concerning
library management, techniques, and methods.

4. TELEMEDICINE FOR REMOTE AREA HEALTH-CARE DELIVERY

Principal Investigator:	K. Samuelson, M.D. Institute for Information Processing Royal Institute of Technology Stockholm, Sweden
Co-Principal Investigators:	John Hanley, M.D. Brain Research Institute University of California, Los Angeles
	Harold Borko School of Library Service University of California, Los Angeles
Project Manager:	Robert L. Carmichael Institute of Library Research University of California, Los Angeles
Submitted to:	National Institute of Health
Proposed Duration:	May 1, 1972 to April 30, 1974
Requested Funds:	$97,429

It is the aim of this project to improve medical support, preventive
medicine, and health care delivery by means of teleprocessing, multimedia
communications, and automated knowledge backup for clinical decisions.
An outline of methodology would be provided for medical information transfer
in remote, as well as congested, areas.

The work will have four specific goals: 1) to provide a review of
existing literature in the area of telemedicine, 2) review and identify needs,
3) identify priorities for future work in this area, and 4) recommend action
to improve methodologies and services.

5. GLOSSED TEXT PROJECT

Principal Investigator:	Robert L. Carmichael Institute of Library Research University of California, Los Angeles

Co-Principal Investigators: Sandra Garcia
Department of English/TESL
University of California, Los Angeles

Judith Green
Institute of Library Research
University of California, Los Angeles

Janice Laine
Graduate School of Education
University of California, Los Angeles

Raymond Wood
Graduate School of Library Service
University of California, Los Angeles

Submitted to: Institute for American Cultures, UCLA

Proposed Duration: 3 years

Requested Funds: $151,693

This project is directed toward those problems which are confronted daily by speakers of variant dialects at the begir ing college level in their endeavors to read the formal written language of text books. A glossary, consisting of words students have picked as likely to cause them trouble, will be incorporated into a computer composed text. Each time a word in the glossary is printed in the text, the computer program flags the word and reserves space at the bottom of the page for a footnoted definition. The goals of the interdisciplinary team of investigators are to achieve:

1. A better understanding of reading and related communication difficulties.

2. Useful test materials that provide positive support to the reader.

3. Effective evaluation techniques and ways of measuring comprehension improvement.

4. Automated text, glossary, and bibliographic data bases.

5. Information handling approaches that utilize advanced microform, computer, editing, and publishing techniques.

In summary, task activities are centered around the preparation, conduct, and evaluation of a pilot study and are directed primarily toward understanding the nature and usefulness of glossed text products rather than the production process itself.

IV. PUBLIC SERVICE

The staff of the Institute of Library Research engages in many public service activities. The benefits of the Institute's research are shared by individual scholars, official agencies and activity groups, and the general public.

Bibliographic tools developed by ILR, such as the U.C. Union Catalog Supplement, the Cumulation of L.C. Subject Heading Supplements, the U.C. Union List of Serials, and others, make the information stored in libraries more accessible and therefore more usable to the public. Also the techniques developed to help produce these products will be available to many interested organizations.

Projects like the assessment and improvement of prison libraries have the very desirable effect of helping inmates make a successful re-entry into society. The study of national library service needs and specifications will aid the government in planning for adequate library servcies throughout the country.

Visiting scholars continually tour the Institute's facilities. They receive guidance in solving their problems and valuable information on ILR's approach to major projects. The Institute answers a constant flow of requests for technical papers, reports, and publications.

Throughout the year, ILR staff members also serve on national advisory boards and participate in professional society activities.

V. PERSONNEL

A. Special Staff Notes and Resignations

Ralph Shoffner, Project Coordinator at ILR-Berkeley, since the establishment of that office, moved on this year to the Richard Abel Company in Oregon to assume the position of Director of New Products Development. We thank him for his years of distinguished service at the Institute and wish him well in his new situation.

B. Staff Members

The following persons were ILR staff members during this reporting period.

Los Angeles

Manager	**Librarian and Research Assistant**
Robert Carmichael	Christie Robbins
Research Assistant	**Clerk-typist and Assistant**
John Liles	Carol Armstrong

Berkeley

Director
Charles Bourne

Specialist	**Sr. Typist Clerk**
Jay Cunningham	Janice Kumataka
Allan Humphrey	Rhozalyn Perkins
	Patricia Sheehan
Associate Specialist	
Tom Hargrove	**Lab Assistant**
	Steve Arnaudo
Assistant Specialist	Joan Chan
Ruth Dunham	Ruth Clark
Marjorie Le Donne	Kathy Cook
Linda Nakamura	Marcella Davis
	Alida Delahoussaye
Junior Specialist	Sheryl Elam
Nancy Slanger	Richard Hashimoto

Programmer

Peggy Ely
William Harrelson

Assistant Programmer

Maxine Sansing

Assistant Editor

Linda Herold

Administrative Assistant

Barbara Johnson

Principal Clerk

Bettye Geer

Lab Assistant

Scott Herold
Arlyne Kajita
Steve Keys
Janice Kamataka
Lawrence Legard
Kay Leon
Jeffrey Lewis
April McMahon
Akemi Matsumoto
Karen Olson
Bruce Papp
Annie Rhodes
Jean Sheer
Alan Silverman
Varetta Thomas
Drewyn Watson
Doris Willingham
Mary Wilson
Joan Winer

Student Personnel

Programmer

Arjun Aiyer
Rodney Randall

Research Assistant

Borut Dekleva
Jo Robinson
Gilda Perolman

Junior Specialist

Joan Stout

Sr. Typist Clerk

Carole Fender

Lab Assistants

Arthur Anderson
Karen Aughinbaugh
Lora Boyd

Lab Assistants

Charles Brint
Lee Ann Bryant
Joseph Carlson
Thomas Clark
Edward Dong
Richard Drager
Don Egan
Michael Foster
Constance Gloy
Joseph Guerriero
Judy Hitt
David Hull
Ishrat Kadri
William Kaupe
Ann Kennedy
Marliese Kim
Gerald Korshak
Lakkaruju Krishna

Lab Assistants

Katshuiko Kurano
Terrence Leon
Norma Levingston
Susan Mace
Sheila Markman
Cathy Neiman
Masuro Sakamoto
Nanette Sand
Marilyn Schwartz
Dianne Shirley
Gloria Stockton
Wolfgang Tatsch
Judy Todd
Donald Thompson
Sunny Victor
Robert Washbroit
Henry Yu

VI.   PUBLICATIONS

Publications are a valuable by-product of ILR's project work.   The
following citations represent reports published during this reporting period.
In this list, papers associated with a project are grouped together.

Reports with an ED number are available from the ERIC Clearinghouse,
P.O. Drawer O, Bethesda, Md. 20014.   Items from 1-100 pages are $3.29; 101-
200 pages are $6.58.

<u>Information Processing Laboratory for Education and Research in Library Science</u>

Aiyer, Arjun K.   <u>An Information Processing Laboratory for Education and
    Research in Library Science: Phase II, The CIMARON System: Modular
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