

Access

News from the University Libraries at Notre Dame

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MICROCOMPUTERS IN THE LIBRARIES

During the past few years the University Libraries system has evolved from a relatively traditional institution to one in which technology is playing an ever increasing role. In 1978, having discontinued the mass production and reproduction of our own catalog cards, we joined the Online Library Computer Center (OCLC) in order to share in its online cataloging database; shortly thereafter, we created ACQUIS, our own automated acquisitions system. Next, national bibliographic databases were provided for the University community. Soon an integrated automated system will be installed. This system will eventually replace many of our current manual operations. While these sophisticated systems will continue to influence progress in the area of information handling, the microcomputer may have the most lasting effect upon the Libraries.

The first microcomputers were introduced into the Libraries' environment in 1983. Interest grew steadily as elementary, then accelerated training sessions were instituted. There are now 23 microcomputers in the Libraries, and it is anticipated that their numbers will increase. The variety and efficiency of current applications indicates that the microcomputer will play a strong role in future library work.

There are numerous examples of library microcomputer use. Some of these are suggested by the variety of software now available. Currently SuperWriter is the most commonly used program, but WordStar, WordStar2000, and Volkswriter are also available for word processing. PC-File and CONDOR III are being used for file management, and Lotus 1-2-3 and SuperCalc3 are being used for statistical applications.

In order to most effectively exploit and coordinate these activities, the Libraries hired a microcomputing consultant in September 1985. James Wilmes of Wilmes Systems, South Bend, is a graduate in mathematics from Notre Dame, and holds an M.B.A. from Northwestern University. He has worked on campus on two previous occasions, once as a consultant at the Computing Center, and again as its Manager of Academic User Services, a post which he relinquished in order to form his own consulting firm in 1982. Jim's duties include the recommendation of appropriate hardware, software, and procedures for library applications use of microcomputers; the provision of training for library microcomputer users; technical consultation for problem resolution in the use of hardware and software; and assistance in development of interfaces between microcomputer library applications and specific library systems.

To date, Jim has worked closely with the Library Microcomputing Committee (and its predecessor, the Task Force on the Library Use of Microcomputers) and is in the process of facilitating the following:

- * A PC-File system to produce order request forms and related reports intended to track expenses against various funds and to produce lists of recent acquisitions. A prototype of this

ENGINEERING/ARCHITECTURE LIBRARIES: DEVELOPMENTS

The University's College of Engineering consists of five departments located in the adjoining Cushing and Fitzpatrick Halls of Engineering. These are Aerospace and Mechanical Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, and Materials Science and Engineering. In addition, the College administers the School of Architecture, which is housed in the old library building. The University Libraries system administers two libraries serving the College and the School, one in Fitzpatrick/Cushing Hall, the other in the Architecture Building. Both libraries are under the general administration of the University Engineering/Architecture Librarian, Robert J. Havlik. Each library, however, has a distinct character and goals of its own, and it is the responsibility of the library system to meet the special collection and service needs of each.

The Architecture Library, which is under the supervision of Ms. Linda Messersmith, Architecture Library Specialist, currently houses the major portion of the University's books and journals in the field of architecture as well as a smaller collection of materials on urban planning, landscape design, and architectural engineering. The emphasis of the collection is primarily on design. Whereas the subject classification of the collection is somewhat limited, the depth of the collection is of importance, for it is one of the goals of a design-oriented program to provide ideas and visual concepts for a project regardless of origin or date. The recent upgrading of the Department to a School of Architecture, as well as the plan offering a full Master of Architecture de-

system has been completed, and the eventual addition of personal reports is being projected;

- * A system by which interlibrary loan requests may be electronically transmitted from remote departments or branches into the Interlibrary Loan Office;
- * The setting up of a link between CONDOR III and SuperWriter so as to expedite the production of the Reserve Book Room's fine letters; and
- * The teaching of various levels of SuperWriter and Disk Operating System (DOS) classes and repeated demonstrations of PC-File.

Jim is also in the process of working on the creation of reference materials intended to provide a basis for self-help, as well as documenting problems encountered and solved. He is looking forward to the receipt of a recently ordered "PC Plus" package which will provide self-instruction tutorials on the use of microcomputers in general. When parts of the integrated library system are put in place, Jim will be involved with making various systems compatible and with identifying the applications which are most suitable for the main-frame and those which are more appropriate for microcomputer use.

Electronic information handling will obviously have an important role to play in the Libraries for some time to come, and Jim Wilmes' work ensures that the Libraries' faculty and staff will be able to effectively utilize the microcomputer.

Katharina J. Blackstead

ENGINEERING/ARCHITECTURE continued from page 1

gree program, proposes a new challenge to the Library to broaden the areas of collection development.

The Library is anticipating much needed physical changes when the Architecture Building is renovated in the near future.

The Engineering Library in Fitzpatrick/Cushing Hall is under the supervision of the Engineering Library Specialist, Ms. Phoebe Zolbrod. This facility is new as of November 1983.

The move increased the seating capacity to 83 and nearly doubled the shelving capacity. Because of the increase in the number of engineering students, however, and books needed to cover the many fields now encompassed by new engineering programs, a new concept had to be adopted toward the Library to fit the allotted space and need-

ed services. Under the present concept, the collection and services of this Library now closely resemble those of an engineering research special library, an environment in which most graduates will be working after graduation. In order to serve the strong research programs in the College, there is a strong emphasis on the more recent technical literature, research and reference books, and printed and computerized information retrieval services. The book collection itself, by necessity, has been broadened to meet the interdisciplinary requirements of the various engineering programs. For example, the Civil Engineering Department is expanding into the fields of biotechnology and environmental technology. The Electrical Engineering Department is heavily involved in computer research, and the Aerospace and Mechanical Engineering Department is launching a strong program in robotics. In each area the Library must build new collections.

The Architecture and Engineering Libraries now support the information needs for over 25% of the University enrollment as well as a major portion of the scientific and technical research performed at Notre Dame. The current staff, including Linda Messersmith, Phoebe Zolbrod, and Robert Havlik, have been selected with their subject backgrounds in mind as well as their dedication to serve their unique clientele. Heavy library use, an increase in research contracts at the University, and numerous reference questions and compliments from graduates now trying to find their way as professionals or in industry, are an indication that we must be succeeding.

Robert J. Havlik

NEW INDEXING TECHNOLOGIES: THE SCHOLAR'S JUKEBOX

Many factors have been identified as contributing to the present information explosion and technological revolution which is currently affecting the library. The development and decreasing cost of computers and computing time, coupled with the realization that information is an important and lucrative commodity, has led many into the field. This has benefited the library as a consumer, in that a broader spectrum of products is now available for selection. But it has also led to confusion as to the best selection for our clientele and has increased budget pressures tremendously.

For some time the emphasis on information technology has been responsible for an increase in the number and variety of indexing and abstracting titles available in traditional paper form. Where once Readers Guide stood alone, now there are numerous indexes, among them Popular Periodicals Index, Magazine Index, and Canadian Periodical Index. However, in order to efficiently handle the increase in materials to be indexed, index producers developed computer based methods to produce their paper products. And once this data was placed in machine readable format for their internal applica-

tion, it became apparent that such a system might also be marketable to a public that was growing in sophistication about computers. For such customers the advantages of computerized indexes are clear; they report more currently, and access is more sophisticated and efficient. An example of the latter is that Boolean searching of multiple terms is possible (e.g., business and sports but not football; Beckett and novels and semantics).

While direct access to the computer database may be the most desirable and expeditious method of indexing information, it is also expensive, especially in the scientific and business fields. Additionally, not every library user is comfortable with computer searching. Therefore another market was identified as consisting of those users willing to relinquish sophisticated searching capabilities for an up-to-date product that is easy to use. As a result, Computer Output Microform (COM) was developed. These microformat indexes are priced lower and have the benefit of longer cumulations (from several months to five years, depending on the title). Paper cumulations for a similar period are often 90% more expensive than the microform. Magazine Index, Business Index and the Auto-Graphics Government Documents Catalog Subscription are examples of these new COM microforms already located in the Library.

With development of the databases firmly established, the next marketable technologies to be explored were those of storage media and access methods. Developments in the laser disk and compact disk technology allowed these media to be adapted for library use. Currently the Library is testing a product produced by Information Access Company, the producers of the above mentioned Magazine Index and Business Index. This new product, InfoTrac, is a consolidation of the Magazine Index and Business Index databases onto a laser disk. The system is accessed through an IBM Personal Computer using the InfoTrac software program, and allows for a

large amount of data (here bibliographic citations) to be stored on one disk. A printer is also available for producing a paper copy of the citations selected by a user. Subject access through InfoTrac is more sophisticated than through paper indexes. However, lack of keyword indexing and awkward subject headings mean that subject searching is sometimes a problem. Other systems on the horizon may offer more complex and yet "user friendly" search capabilities.

As with any new development, the impact of new technologies upon the library community is still not known. Already evident, however, is the cost of such systems. The InfoTrac system is approximately \$14,000. Obviously, a library's budget may be severely taxed in acquiring these new technologies. If the cancellation of paper indexes is proposed as a method of financing these new systems, it could negatively affect backruns of indexes. Further questions exist for librarians and scholars. Will retrospective systems be available or will there be gaps in our indexing? Will we carry duplicate subscriptions, one in paper format and another in microformat or online? Will the lack of industry-wide standards in the laser and compact disk industry continue to require the expense of discrete hardware for each system? Will stress be placed on existing library systems as a result of introducing these new technologies? What are the dynamics that govern the development of sophisticated indexing in any given field?

These and other issues will need to be discussed as new information technologies are developed. This is an exciting and interesting time in the information field. The University Libraries will be attempting to bring these new technologies to the campus on an experimental, or in some instances, permanent basis. Look for these new additions and give us your comments.

Stephen M. Hayes

FRIENDS OF THE LIBRARY PROGRAMS COVER DIVERSE TOPICS

The Friends of the Library at Notre Dame recently sponsored two programs of library and scholarly interest. The first of these was the annual Irish culture program and the second was the fifth program in the Friends' colloquium series on library issues.

The Irish program (late in March) focused on the Irish oral and musical arts and has been nurtured by Joel and Lou Ann Bullard and Jack Walsh among others in the Friends. In the first half of the evening Kevin Henry, a storyteller and musician, was joined by his daughter Maggie, a talented fiddle player, in a presentation that combined both storytelling and traditional music. In the second half of the evening Kevin and Maggie Henry joined with David James and Dan Gellert and a number of other musicians and folk-singers to perform across the entire spectrum of traditional music. This talented group included some of the finest authentic traditional musicians in the country, and this Irish culture series represents a rare opportunity for those in the area to hear this music played at such an extraordinary level.

The Friends' second program, the colloquium on laser optical disk technology and networking, was held in April in the Memorial Library. Tamara Swora of the Library of Congress (LC) spoke on laser optical disk technology and the current LC preservation project that involves extensive use of this technology. Additionally, Barbara Markuson, Executive Director of the Indiana Cooperative Library Services Authority (INCOLSA), spoke of shared library enterprises ("networking") as a lasting "revolution" of great significance for libraries. Mrs. Markuson spoke extensively of library networks as an invaluable means of sharing the critical electronic informational technologies currently available. She pointed out the growing cost of sophisticated information systems and indicated the role that networks play in

making new systems economical and efficient as well as effective. She also indicated that the kind of project Notre Dame is now undertaking to automate its catalog is laying the groundwork for a state-wide (or larger) research system with the potential for a very sophisticated system of shared collection development. Mrs. Markuson's extensive experience and scholarship in the field enabled her to address these issues with great insight.

Tamara Swora began her talk on the laser optical disk (LOD) with a brief description of the technology. The LOD has the appearance of a long playing phonograph record; however, micro "grooves" are raised on the surface of this "record" permitting very high density storage of print or video images. For example, between 10,000 and 20,000 pages of text may be stored on one side of a standard 12" digital disk and up to 54,000 images on a similar analog disk (thus making the disks an ideal information storing medium for any information or record-keeping enterprise). Furthermore, since the disk is played "untouched" (it is "read" by a beam of light), it is an ideal medium for print information or images that may be in continuous use.

The current LC project is designed to utilize the advantages of the laser disk by preserving valuable archival materials while at the same time making them broadly available to the public. A few of the LC collections included in the project are rare law materials, music and manuscripts, and, in the nonprint project, lantern slides, cartoon drawings and motion picture stills.

Considered solely from an informational viewpoint, this Friends' sponsored program provided an invaluable service to both Indiana librarians and scholars interested in new informational technology and networking.

Patrick J. Max

GREENE COLLECTION OBJECT OF CONSERVATION GRANT

Edward Lee Greene (1843-1915) was a botanist of national and international reputation. He was a professor at the University of California and the Catholic University of America and made major contributions to his field, particularly in the systematic botany of the American West.

Greene was also a complex and controversial figure in the history of American science. He was one of the first Americans to break away from European influence. His stormy disagreements with Asa Gray and Marcus Jones, leading scientists of his day, centered on questions of botanical nomenclature and Greene's insistence that modern concepts of systematic taxonomy stem directly from the past and the past should therefore be studied.

In his many years as a botanist, Greene managed to accumulate both a large herbarium and a unique botanical library. He described his library as "the pioneer among American collections of pre-Linnaean and rare, though important, post-Linnaean books of botany."

The library and the herbarium were of such value to the American scientific community of the early twentieth century that several institutions, including the University of California, the California Academy of Sciences, the Field Museum of Natural History in Chicago, and the Smithsonian Institution, were interested in acquiring them. Greene was bound by contract for ten years, until May 28, 1914, to leave the collections to the Smithsonian. His death after the termination of this contract enabled the University of Notre Dame to acquire the collections -- the herbarium, the library, and Greene's correspondence -- as the beneficiary of his estate.

To date, the University Archives' staff has inventoried all of Greene's personal papers and correspondence from 1895 to

1915 and reported their availability to scholars by listing them in the National Union Catalog of Manuscript Collections.

Similarly, Professor Theodore J. Crovello of the University's Department of Biology described the specimens in the Greene herbarium and entered this information into a computer database which is accessible to all. Only the contents of Greene's library remain to be brought to the attention of the world of scholarship.

The Edward Lee Greene Library has value for both the historian of botany and for modern botanists who work in the area of type-specimens. The collection was cataloged in the 1920s, but a description of the holdings was never published so that it is known to only a few scholars beyond the Notre Dame campus. In addition, between 1915 and 1963 the collection was housed in an environment less than ideal for the preservation of books. It is of some importance, therefore, that an effort be made to recatalog the Greene library and to treat the books with modern conservation techniques.

To this end, the University Libraries made a proposal to the U.S. Department of Education last year for a grant to cover the cost of recataloging the Greene library, to publish a catalog of the collection, and to treat those parts of the library that are physically deteriorated and need conservation. The grant was awarded last summer and is being carried out under the direction of principal investigators Dr. George E. Sereiko, Associate Director of Libraries, and Ms. Sylvia F. Akai, Head of the Cataloging Department.

The first part of the Greene Project, the examination of the collection by a conservation specialist, is nearing completion. Ms. Sally Roggia, former Director of the Midwest Cooperative Conservation Program, a federally sponsored conservation effort at Southern Illinois University, visited Notre Dame in the fall semester and carefully examined the Greene library. Her report

is anticipated with some interest, since it will be used as the basis for conservation activities such as de-acidification, rebinding, etc.

In the meantime, the Cataloging Department of the University Libraries has been studying the 1920s cataloging of the Greene library with the view of replacing it with modern, computer-based cataloging records. When the database of these records is completed sometime next year, it will be possible to assemble the cataloging data for a published catalog of the Greene library.

A valuable resource of national importance at Notre Dame will, through this project, be preserved and made available to scholars and future generations.

David E. Sparks

NEW LIBRARY FACULTY MEMBER

Elizabeth Moon has been appointed to the library faculty as Social Sciences Cataloger effective January 27, 1986. Moon earned her Bachelor of Journalism degree from the University of Missouri at Columbia, where she worked as an assistant in the Main Library and the Law Library. In December 1985, she earned her Master of Library and Information Science degree from the University of Texas at Austin.

Dolores W. Tantoco

"USER FRIENDLINESS"

The annual University of Illinois Graduate School of Library and Information Science clinic on data processing (held in late April) addressed the problem of "user friendliness" in regard to computers. This conference provided two predictable benefits: the cumulative wisdom of eleven distinct expert opinions on a given topic and a structured and dedicated time frame during which to think or rethink this issue.

"User friendliness" is a term describing the result of

organizing computer systems harmoniously, so that the underlying structure is clear, precise and logical, and, as a result, easy to use. Unnecessary complexity, shoddily written and presented programs, and inattention to the requirements of potential user groups represent the opposite side of the coin, a sort of "user hostility," as it were. As one of the speakers at the conference said, "the system should not be a task in itself." For example, one should not be forced to go through three screens (two menus and a help message) in order to return to the screen that was previously perused. The user should be able to concentrate on finding the desired data and not be concerned with the procedure used to search the database. An ideal system would encourage the user to experiment and to become proficient in all aspects of a program. Serendipity should not be involved in the creation of such a system; there is no substitute for clear, logical, careful and thorough reflection when setting up such a system.

Librarians are very much concerned with creating "user friendly" systems, because they are faced with automating extensive informational systems that must be used by people of varied backgrounds, with an infinitely broad range of interests and methods of inquiry. As a consequence, there is an ongoing discussion in the library world that focuses on instruction of the general public in the use of automated library information systems.

Unfortunately, frequently by default, responsibility for instruction has often fallen totally on the shoulders of the computer programmer and on the system itself. Cautious assessment of how people learn on computers and careful selection of appropriate alternative approaches has not taken place. As a result even clear and simple systems seem to be overburdened with extensive instructional elements that might better be handled in another fashion. Generally speaking, online

instructions should be clear, simple, visually attractive, and designed in such a way as to permit quick scanning for relevant detail. Additionally, all messages should be clear, precise, and free of jargon. However, as critical as these suggestions are, they are no surrogate for an elegantly structured program. Carelessness in planning a system cannot really be remedied by adding extensive instructional files after the fact.

When designing instructional screens some modest emulation of George Orwell's "Politics" could not hurt. One should ask oneself a series of direct questions:

* What is it that I wish to explain to the user?

* What part of this message should be conveyed online?

* How do I express this information as clearly, simply and precisely as possible?

* In what way can I display this information on the screen so as to increase its potential for effective communication?

* How do these instructions and the system itself relate to the total research interests of potential users?

There are many expressions of advice and common sense guidelines that one might adopt in planning instruction in automated library systems. But a perusal of, and a familiarity with, the questions above should ensure that one is substantially dealing with the central issues of automation instruction.

In the event that a library is required to utilize an automated system that creates problems for inexperienced researchers, a program may be written to mediate between such patrons and a difficult existing system. This may be an additional piece of software that acts as a translator between the user and various databases. Such interfaces frequently make a patron's search more productive by translating "natural" language into appropriate commands for a given electronic system. For example, one program discussed at the conference successfully enabled patrons to use a single natural language command system for several discrete databases (on only 60K of memory).

Such interfaces are invaluable, but, with more care in planning and design, might be redundant.

In conclusion, the data processing conference presented a substantial amount of time and enough provocative insights into the topic of "user friendliness" to enable one to identify the real issues involved in creating a rational and accessible database.

Patrick J. Max
Robert T. Dolan

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SUBSCRIPTION NEWS FROM THE UNIVERSITY LIBRARIES AT NOTRE DAME

This is a list of periodicals and annuals to which the University Libraries have recently subscribed and which have been cataloged during the past several months. The Current Periodicals and Earth Sciences Reading Room location designations are for unbound issues only; when bound, these titles will be shelved in the Tower (floors 2 through 13) of Memorial Library.

<u>Call Number</u>	<u>Title</u>	<u>Location</u>	<u>Call Number</u>	<u>Title</u>	<u>Location</u>
	Statistical Reference Index Microfiche	Microtext	F 1225.5 .M49	Mexican Studies	Current Periodicals
AP 56 .H73	Hrvatska revija = La Revista croata = Croatian review	Current Periodicals	F 1401 .B82	Bulletin bibliographique Amerique latine	Tower
AS 36 .N814ug	North Dakota Quarterly	Current Periodicals	GC 1 .J64	Journal of Physical Oceanography	Engineering Library
BL 1 .Z99 R47	Research in ministry	Reference	GN 1 .C73	Critique of anthropology	Current Periodicals
BL 48 .N36	NAOS, Notes and Materials for the Linguistic Study	Current Periodicals	GN 1 .H5	History and anthropology	Current Periodicals
BL 60 .R42	Religion and Society Report	Current Periodicals	GN 1 .M36	Mankind quarterly	Life Sciences Library
BL 2530 .C2 G75	Grail	Current Periodicals	H 1 .P69	Policy Review	Current Periodicals
BV 4200 .H64	Homiletic	Current Periodicals	HB 9 .E39	Economia y desarrollo	Current Periodicals
BV 4335 .C33	Catholic Health World	Current Periodicals	HC 79 .E5 I42	Industry and environment	Current Periodicals
BX 801 .C48	Church (New York, N.Y.)	Current Periodicals	HC 800 .B44	Beyond relief	Current Periodicals
BX 3001 .B434	Benedictina	Current Periodicals	HD 1790.5 .A27	Estudios rurales latino-americanos	Current Periodicals
CT 120 .C66	Contemporary newsmakers	Reference	HD 4805 .I76	International journal of manpower	Current Periodicals
DS 38 .A57	The American journal of Islamic social sciences	Current Periodicals	HD 9696 .C63 U51592	Data sources	Reference
DS 41 .G39	Gazelle review of literature on the Middle East	Tower	HF 5382.5 .U5 C6	The CPC annual	Reference
DT 351 .A37	Africa South of the Sahara	Reference			

HF 5415.2 .I57	International journal of research in marketing	Current Periodicals	PQ 4001 .A6	Annali d'italianistica	Tower & Notre Dame Collection
HF 5415.12 .P85	Psychology & marketing	Current Periodicals	QA 248 .F87	Fuzzy Sets and Systems	Current Periodicals
HF 5601 .044	The Ohio CPA journal	Current Periodicals	QA 76.5 .A332	Access (Research Triangle Park, N.C.)	Engineering Library
HG 1501 .J63	Journal of retail banking	Current Periodicals	QA 76.8 .I1015 P38	PC	Current Periodicals
HG 4574.1 .A45	Fact book (American Stock Exchange)	Reference	QA 248 .075	Order	Mathematics Library
HJ 101 .F56	Financial Accountability & Management	Current Periodicals	QE 1 .E57	Environmental geology and water sciences	Earth Sciences Reading Room
HV 701 .U58	UNICEF news	Current Periodicals	QH 426 .C87	Current Genetics	Life Sciences Library
HV 1451 .J68	Journal of Gerontological Social Work	Current Periodicals	QL 757 .P35	Parassitologia	Life Sciences Library
HX 1 .R33	Radical History Review	Current Periodicals	QP 360 .I57	International journal of psychophysiology	Current Periodicals
KF 70 .A34 I46	Index to the Code of Federal Regulations	Reference Document Center	SH 328 .M38	Marine resource economics	Current Periodicals
ML 5 .A253	Acta organologica	Tower	TA 1 .B75	The Bridge	Engineering Library
ML 410 .V82 I56	Informazioni e studi vivaldiani	Current Periodicals	TA 656 .S92	Structural safety	Engineering Library
ND 245 .P37	Parachute	Current Periodicals	TJ 260 .H388	Heat and Technology = Calore e tecnologia	Engineering Library
NX 1 .A772	Art & design/Architec- tural Design Publica- tions	Current Periodicals	TL 676 .J65	Journal of Guidance, Control and Dynamics	Engineering Library
P 92 .B7 C24	Cadernos INTERCOM	Current Periodicals	Z 678.9 .A1 L6	Library hi tech news	Current Periodicals
PN 1993 .P4	Persistence of vision	Current Periodicals	Z 1605 .R325	Inter-American review of bibliography	Current Periodicals
PN 2000 .A88	Assaph. Section C, Studies in the theatre	Tower	Z 5641 .A5	Annual bibliography of computer-oriented books	Reference