PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Grainger Engineering Library Center is Site of Experimental Digital Library

The University of Illinois has been awarded a $4 million grant from the National Science Foundation (NSF) to study and develop techniques to access resources through the Internet. The grant is part of a massive effort by the NSF to develop new technologies for digital libraries.

Researchers at the Grainger Engineering Library Information Center, the Graduate School of Library and Information Science, and the U of I's National Center for Supercomputing Applications will be responsible for creating the testing site, which will offer patrons digitized versions of thirty engineering and science periodicals and will dramatically improve users' ability to search for and retrieve electronic information.

The project is one of six announced in September 1994 as part of the $24 million federal Digital Library Initiative. All projects are intended to digitize different fields and mediums of information and make them available over the Internet. The grant awarded to Illinois is the only library-based grant.

While current information retrieval systems allow users to search titles of articles, author names, and subjects using a controlled vocabulary, they usually store only a summary or an abstract, not the actual text of the document. Having performed a search in this environment, a patron then has to track down the actual articles on the library shelves, at which point he or she may determine the article is not at all relevant.

With the new digital library, users will be able to view entire journal articles on screen, perfectly formatted and with visual images in place, just as if they were reading paper issues of the journal or magazine.

"All major publishers produce their material in machine-readable form," says William Mischo, head of the Grainger Engineering Library. "When they get something from their typesetter, it's in a markup language that gives information not only about the form or appearance, but also about the content of the document."

Electronic storage of the entire document means that search-and-retrieve functions can be made much more specific. As systems librarian Tim Cole explains, if you try to search conventionally stored article abstracts or summaries by using a key word on 10,000-word documents, the search will not be very precise. "But if you now know sentence and paragraph structure and can search subject headings, for example, the search can be made to be much more specific. You can even look for two particular words appearing in the same paragraph or sentence, suggesting that they have a closer relationship."

In addition to the benefits of more specific search capabilities, the digital library will also provide advantages when looking at back issues of the electronically available journals. The difference, says Professor Cole, between the library's printed backlog of journal copies and the journal copies that will be stored on machine is that there will be an annotation system in place for the electronic issues.

"By the end of the four years, we hope to have an annotation system in place whereby if someone is reading a back issue of a particular journal via our on-line system, visual prompts will appear in the text where some comment or notation was made since that article came out. The person reading the document can then refer to that comment immediately. This is, of course, impossible or at least very difficult... (continued on page 2)"
Unpublished Sandburg Poems Added to Library's World-Famous Sandburg Collection

Five poems about Abraham Lincoln, written by Carl Sandburg but never published during his lifetime, have been added to the Library's world-famous Carl Sandburg Collection.

The poems are part of the recent acquisition of Sandburg papers that until now had been stored in a bank vault in Asheville, North Carolina. Two of the poems discuss an incident that happened to Lincoln in New York in 1861 while attending a performance of a Verdi opera. Lincoln apparently wore a pair of black kid gloves instead of the more acceptable white kid gloves. His large hands, in the wrong colored gloves, hung over the railing of the box for all to see. The hostile press, wanting to show Lincoln to be uncultured, referred to him as a "gorilla" and a "baboon."

Mr. Lincoln and His Gloves, now seen to be a major artistic achievement, was apparently written in the 1930s but never published during Sandburg's lifetime. It has since been published by Margaret Sandburg.

Another poem, written in 1915, takes up the baboon image, for which reason it was one of two poems placed in an envelope labeled "not to be published until after my death." The poem, called simply Lincoln, is set in the jungle, a place of savagery much like the conditions in the United States during the Civil War and, not coincidentally, during World War I, when the poem was written.

Lincoln's body back to Springfield for burial.

Sandburg's interest in Lincoln began when he was a college student. "Sandburg's most influential college professor, Philip Green Wright, had come from an old New England abolitionist family, and it was he who encouraged Sandburg to read biographies and critical studies of Lincoln," says Professor Hendrick.

Professor Hendrick presented a lecture on these poems at a meeting of the Lincoln Group of the District of Columbia on February 14, 1995.

"The horrors of that war linger over those poems," explains George Hendrick, professor of English at the U of I, who was responsible for securing the manuscripts for the Library. "Sandburg, of course, didn't participate in the Civil War; he had only read about it. But he was a journalist in Chicago when World War I broke out, and he was reading the communiques and talking to people.

"So in some ways, the horrors of the Civil War and the more immediate conflict in Europe seem to have been much on his mind. Those wars, especially the conflict then raging, seem to be one of the major influences in the way he was thinking about Lincoln."

The second poem in the envelope is untitled and, according to Professor Hendrick, was probably also written during World War I. "In this poem we see Sandburg beginning to think about writing a biography of Lincoln," he notes.

Of the other unpublished poems, one speculates about the parentage of Lincoln stories that Lincoln's mother was illegitimate and that Lincoln himself was illegitimate grew out of the bitter presidential election of 1860, and the other discusses the transportation of Lincoln's body back to Springfield for burial.

Digital Library (Cont'd from page 1)

where some comment or notation was made since that article came out. The person reading the document can then refer to that comment immediately. This is, of course, impossible or at least very difficult to do with printed paper copies of the same journals."

While it seems that this technology is ushering patrons into the golden age of research libraries, there are still a number of issues to be grappled with. One of the grittiest is the issue of copyrights and copyright infringement. If journals and the articles they contain are now available on computers, what is to stop a potential user from simply downloading the information and taking it home?"

"Right now," says Professor Mischo, "publishers are very confused about how all of this is going to work. If the information is available on-line, there is a fear that libraries all over the country will cancel their subscriptions, reasoning that the information is available on-line for free."

But as Professor Cole points out, commercial publishers are willing to work with the project because they know that digitization of journals and magazines is the wave of the future. "They have an interest in cooperating with us because if they don't, their publications may lose out in the end."

To safeguard against mass journal cancellations, only students and faculty members on the Urbana-Champaign campus will have access to the digital library for the first three years of the project. During the fourth year the digital library will be made available to universities in the Big Ten conference. This limited availability will give economists a chance to study the financial impact of the digital library on the publishing world.

The issue of information storage presents another problem. The body of knowledge that could potentially be stored digitally is so large that it is unlikely that any one library will be able to store all of it.

"We are initially working with thirty engineering and scientific journals," says Professor Mischo. "There are 90,000 such journals out there. We need to look at how these various systems are going to link together and create a model for how we will retrieve and store all of this information."

"Is this the end of libraries as we know them? Will we turn on our computers to read David Copperfield instead of cracking open a book?"

Professor Mischo doesn't predict that happening anytime soon. "I wouldn't bet on paper disappearing in any of our lifetimes. Books are a very efficient format for reading. They're portable, user-friendly, and no one has to give you instructions about how to turn a page or how to open to the middle or look at the table of contents or the index. It's a very intuitive technology."

the article's context and the nature of its content. It's a very intuitive technology."

the index. It's a very intuitive technology.
Library Acquires John Philip Sousa Collection

Few composers strike patriotic chords in the hearts of Americans like John Philip Sousa.

Recently the Library acquired from the School of Music's University Bands a collection of Sousa music and other memorabilia that represents 74 percent of all Sousa materials in the country, making this holding the largest and most important of its kind in the world.

The collection had been with the bands since 1932.

Music in this collection dates from 1896-1932, during which time Sousa directed his own band, known as the Sousa Band. Sousa either wrote, transcribed, or purchased most of the music, but some of it was given to him by publishers and composers hoping that a performance by Sousa's band would bring them instant fame.

In 1906, Sousa and his band performed in both Urbana and Champaign. After one of the concerts, the president of the university at that time, Edmund James James invited Sousa and others to his house for dinner. It was there that Sousa met legendary U of I band director A. Austin Harding. The two developed a fast friendship, with Sousa, a father figure to Harding, becoming his mentor.

"Sousa himself wanted his collection to come to Illinois because he felt it would have its best chance for survival and impact on the American music scene if it were here," says Sousa librarian Phyllis Danner, who has worked with the collection since 1984. "Sousa liked and respected the way Harding kept his music, the way he treated his staff, and the way his library was in order. Sousa also liked the way the university band sounded. He called it the world's greatest college band."

Unfortunately, Sousa neglected to indicate specifically and legally that his music collection was to come to Illinois. It was only through numerous appeals to the Sousa estate that Harding and other nationally prominent musicians were able to convince Sousa's family in the 1930s that the collection belonged here. As it is, the other major portions of the collection are held by the U.S. Marine Band in Washington, D.C., and the Library of Congress.

Now the concern is cataloging and preserving the collection. "The collection must be microfilmed and we'd like to de-acidify the original manuscripts," explains Professor Danner. "We'd also like to catalog the collection and make it available for research."

The Library plans to apply for a grant to support preservation and cataloging of the collection. "This kind of preservation work will be a great public service for researchers," says Professor Danner. She already receives many research requests from scholars both on campus and elsewhere.

"If information were available more readily, it certainly would improve the American people's knowledge of the music of that era, and of Sousa himself," says Professor Danner.

While the collection consists mostly of music, there are also interesting artifacts, such as two cigars with Sousa's likeness on the wrappers, a pair of white kid gloves, a copy of his enlistment papers in the Marine Corps, the podium and stand that he used when he conducted, photographs of Sousa at different ages, and the baton he used when he conducted at Illinois and was named honorary conductor of the Illinois band.

Adds Professor Danner, "We hope the new Sousa Collection will become the foundation of one of the finest research collections on American band music in the country."

From the University Librarian

As the Library embarks on the exciting new Digital Library project, it seems appropriate to remember that in undertaking such a project, the Library is not departing from its traditional role in society.

In a sense, the Library has always been a multimedia undertaking in that it has always acquired, stored, and made available materials that represent the dominant way that information is produced and distributed, whether that way was in book form, wax music cylinders, or paper illustrations.

Major changes in the process have occurred over the past two decades, stimulated primarily by computers, and initially the changes dealt only with internal library processes, like bibliographic systems and business systems.

Now, with the emergence of advanced audio and video techniques for computers, there is a convergence of technologies that for the first time creates prospects for a digital multimedia environment that can be brought to bear on a variety of user needs.

This concept of the digital library is one that will include systems to identify the availability of material, as well as the opportunity to actually see and use material on the computer screen and even download the material for later use. This would no longer be limited to just text, but could also include sound and illustrations, thereby greatly empowering scholars and students in fields that are not text-related, such as music and art.

The Library's traditional role in providing access to users will continue to develop, as new navigational tools are created to make finding this digitized information easy. We will still need good indexing and good ways of linking texts to related texts or illustrations or music.

Thus, the real essence of the digital library is not necessarily in the technology, but in making it useful through interpretative and navigational tools and through developing instructional programs that teach how to exploit these new information services and technologies. These have always, and will continue to be, in the forefront of the Library's mission to its patrons, both at the university and throughout the world.

—Robert Wedgeworth
Technology Expert Delivers Fifth Mortenson Lecture

"It is very possible that the late twentieth century and the beginning of the twenty-first will be remembered in the history of western thought as the moment in which a new alphabet was developed... It will be a world where creativity will be of the essence and where knowledge itself will be redefined."

Those are the views of Juan Rada, an authority on technology management and the impact of technology on companies. Dr. Rada was the featured speaker at the 1994 C. Walter and Gerda B. Mortenson Distinguished Lecture on October 11.

Dr. Rada’s lecture, “The Metamorphosis of the Word: Libraries with a Future,” examined the ways in which information has been passed down through the generations, beginning with the invention of the alphabet and ending with a thought-provoking description of the library of the future.

The invention of the alphabet permitted the first time the transmission of messages through time and space without undue alteration of the content. According to Dr. Rada, “It helped produce and standardize belief, ways of thinking, approaches to reality, and opened the door to the development of logic, reasoned argument, and, eventually, forms of scientific methodology and the concept of scientific proof.”

Increasingly since then, societies became divided along two lines—the literate and the non-literate...” Dr. Rada said. “The world of literature is also and most importantly the world of the book.”

With the invention of the portable book, the community of knowledge available to the public was “greatly and massively expanded.” No longer was access to knowledge the domain of the privileged few. Individuals, with the possibility of owning books, were free to create their own personal libraries, and the release of knowledge from the medieval library “reinforced the conditions of the scientific revolution and accompanied the great period of the discoveries.”

Dr. Rada sees another revolution taking place today. The proliferation of multimedia, which uses images, sound, text, and graphics in computer-readable form to convey information, brings learning and perceiving much closer to the daily experience of living.

Multimedia “collapses into one medium the library, the museum, the gallery, the film, the graphic, the sense of place and sound,” Dr. Rada explained. “...and by doing so has much higher educational and retention impact.”

To illustrate his contention, Dr. Rada suggested “the student of medicine who, instead of reading and studying the circulatory system, takes a realistic, virtual-reality trip through the blood vessels and, for good measure, stops in the heart to appreciate the different aspects of this complex system before continuing the trip.”

Dr. Rada claimed that the technological devices to build such models already exist and that the integration of these technologies will radically change the way we create, store, distribute, and organize knowledge.

As a result, the concept of navigation into knowledge will create at least four critical needs for the purpose of understanding the library with a future. First, a new language will have to be developed to include icons and a new kind of typographic interfaces and the understanding of machine-speak and synthetic messages.

Next, a new way to classify knowledge must be developed with a much higher degree of complexity and abstraction, including a multimedia view of subject matters. The current taxonomy of knowledge and the use of indexes correspond to the sequential technology rooted in the nature of the book. This will likely change as we create new indexes for a world that does not distinguish among the vehicles that convey knowledge whether they are books, words, motion or still images, or sound. Ultimately, we will be able to search the bookshelves of the library horizontally and diagonally.

Further, new measurements for scholarly achievement must be proposed, since text will only be one dimension of a person’s knowledge and not, as in today’s world, the dimension. Finally, there must be more emphasis on the cultural roots of our understanding of scientific options, and of views of the world, since our knowledge will come from increasingly diverse sources.

“The library with a future is all that is today, plus the development of an active role in the four areas described above,” concluded Dr. Rada.

“This active role will be given by transforming itself into a place where people can go to prepare these complex, technically demanding navigational learning packages. This means that libraries, as the world, will have to go again through a new metamorphosis in which the word will no longer mean the written one but a new, different, kaleidoscopic reality.”

Currently, Dr. Rada is the managing director of the Environmental Partnership, an organization devoted to implementing and promoting environmental initiatives.

The Library is Looking for...

$95 to purchase the Harris Survey of Americans with Disabilities for the Applied Life Studies Library. This volume is the complete report of a survey commissioned by the National Organization on Disability.

Also, $240 to purchase Nutrition and Fitness for Athletes and Nutrition and Fitness in Health and Disease. These volumes are conference proceedings from the Second International Conference on Nutrition and Fitness.

$310 to purchase Chronologies of World History for the Reference Library. This 4-volume set is a series of parallel chronologies in different areas such as culture, science, and politics. It covers all of recorded history up to 1992, and is the most comprehensive chronology of its kind.

Also, $120 to purchase the Third Edition of Contemporary Photographers, which presents biographical information on approximately 750 prominent photographers from around the world.

Donation to purchase the 1993-94 China Daily Index for the Newspaper Library. The China Daily is the only international English-language newspaper published by the People’s Republic of China. Cost is $300.

$215 to purchase Childhood As A Social Phenomenon, a multivolume compendium of the social conditions of children in Europe for the Education and Social Science Library.

Also, $175 to purchase Eleventh Mental Measurements Yearbook on CD-ROM, a resource of testing information that will benefit students and faculty members in the areas of education, psychology, social work, and sociology.

Funds to purchase a CD changer and interface card/cable for the City Planning and Landscape Architecture Library. This will enable the unit to utilize CD-ROM products in its field. Cost is $1115.

$616 to purchase Arab-Israeli Relations: A Collection of Contending Perspectives and Recent Research for the Jewish Studies collection. This 10-volume set describes the substantial changes that have occurred in the political conflict between Israel and the Arab world.

To donate any of the items mentioned above, please contact Sharon Kitzmiller, associate director of development, at 227 Library, 1408 Gregory Drive, Urbana, IL 61801, or telephone (217) 333-5863.
Cutting the ribbon at the Albert E. Jenner, Jr., Law Library were (from left): University Librarian Robert Wedgeworth, Judge Philip W. Tone, Law Dean Thomas W. Mengler, and Law Librarian Richard Surles.

**Law Library Rededicated to Honor Albert E. Jenner, Jr.**

The Library’s Law Library was officially rededicated on October 21, 1994, to honor the man who first chaired the capital campaign to fund a major building renovation for the College of Law—Albert E. Jenner, Jr. The unit is now officially named the Albert E. Jenner, Jr., Memorial Library.

For many years the law building had been coping with a number of shortcomings, perhaps best illustrated by the library’s pressing need for shelf space. The Law Library’s expanding collection required that areas originally meant for student and faculty use were being used to store books and periodicals, thus exacerbating the space problems that already existed in those areas.

To remedy the situation, a capital campaign to benefit the College of Law was launched in 1985. The funds raised were to be used to renovate the law building, provide adequate space for the Law Library’s collection of more than 500,000 volumes, and to redesign study and work space for the college’s faculty, staff, and students. The late Albert E. Jenner, Jr. (30), a partner in the Chicago law firm of Jenner and Block, served as national chairman. Though he died in the fall of 1988, it was Mr. Jenner’s initial enthusiasm and dedication to the cause that was his legacy to the campaign.

Judge Philip W. Tone, a partner in the Jenner and Block law firm, spoke warmly about Mr. Jenner at the dedication, telling the audience about Mr. Jenner’s early days as one of the reporters for and drafters of the Civil Practice Act. At the age of 40, he became the youngest president in the history of the Illinois State Bar Association, and later served as senior counsel to the Warren Commission.

Mr. Jenner went on to gain national recognition as special counsel for the minority of the House of Representatives during the Richard M. Nixon impeachment inquiry.

"Albert Jenner, a lifelong Republican, nevertheless recommended the impeachment," recalled Judge Tone, "whereupon he was ousted by the Republican minority and thereafter was retained by the Democratic majority in the House."

Judge Tone went on to recall that although Albert Jenner was very busy, he devoted a substantial portion of his time to pro bono cases and encouraged young lawyers coming into the firm to do the same.

"Next to his family and his law firm, this law school was the most important thing in his life. It is fitting that this library will be named after him."

In his remarks at the rededication ceremony, University Librarian Robert Wedgeworth noted that the Law Library is an integral unit of the world-renowned University Library, that the prestige of the Library occurred not by chance, but by careful planning by the founders of the university.

"This rededication of the Law Library in honor of Albert E. Jenner, Jr., recognizes an important contribution by Jenner and Block to a cherished tradition at Illinois," said Professor Wedgeworth.

"Since I arrived at the Law Library several years ago," added Richard Surles, head of the Law Library, "everybody here has been preoccupied with space. It has been our single biggest problem. Suddenly, the bulk of those problems has gone away, and we are now have time to think of something else. The gift of time is the gift that I personally celebrate. We now are able to turn our attention to providing access to information from the balance of the campus in ways in which we could not before. And we can join with the balance of the library system to seek access to information beyond the confines of the campus and the state."

"My thanks go to all those generous donors for giving us six years of the twentieth century to get ready for the twenty-first.”

**Quotables**

"When the national media tell the world that one of our Illinois athletic teams has made the top ten or top twenty-five, I often wish that those same media gave as much space to the remarkable feats of another team—the team that serves our Library."

"In regard to the areas I know best—study and research on Eastern Europe and Russia or the former Soviet Union in disciplines as varied as anthropology, history, law, political science, and literature—our Library has been truly amazing."

"For perspective, we can look back to 1956, when a U.S. State Department survey of twenty-three Russian and Eastern European centers had no entry on Illinois, and did not even list us among the also-rans. At that same time, a survey of North American libraries ranked our Slavic and Eastern European holdings below the top thirty. Now they are ranked among the top three—and have consistently stood that high for more than two decades! Only the Library of Congress and Harvard reportedly have larger collections."

"Thanks to ‘coaches’ from Robert Downs to Robert Wedgeworth and their many helpers, our Slavic and Eastern European librarians have become so knowledgeable and researchers so good, that out-of-state and foreign scholars have often said they can work more efficiently here than anywhere else in the world."

"Indeed, counting hundreds of visiting scholars each year plus our computerized Slavic Reference Service and Interlibrary Loans, our Library evidently serves nowadays more researchers in our field than any other American library except the Library of Congress. In recent competitions Illinois’s Russian and Eastern European Center has been ranked high among academic programs bearing on eastern Europe and the parts of the former Soviet Union."

"The current chaos in the former Soviet Union has greatly complicated our librarians’ efforts to acquire the materials that American researchers need, and severe shortages of funds have been only partly offset by outside gifts. But in my view our library team deserves to be a front-page story every day of the year!"

—Ralph T. Fisher
U of I Professor Emeritus of History,
Director of the Russian and Eastern European Center from 1959 to 1987
**Calendar**

**EXHIBITS**

**February**
- "In Honor of Black History Month." Rare Book and Special Collections Library
- "African-Americans on Video." Media Center
- "Black History Month." Main Corridor
- "History of Rebellion in Chiapas, Mexico." Newspaper Library
- "Scholarship at Illinois: An Undocumented Asset?" University Archives
- "African-American Fraternities." Archives Research Center

**March**
- "In Honor of Black History Month." Rare Book and Special Collections Library
- "Computers on Video." Media Center
- "Digitalization of Maps." Main Corridor
- "History of Revolution in Chiapas, Mexico." Newspaper Library
- "Fighting Illini Men's Basketball: Big Ten and Touring Highlights, 1945-95." University Archives

**April**
- "Items from the John Milton Collection." Rare Book and Special Collections Library
- "American Literature on Audio." Media Center
- "United Nations Documents." Mueller Exhibit Case
- "History of Revolution in Chiapas, Mexico." Newspaper Library
- "La Casa Cultural Latina." University Archives

**SPECIAL EVENT**

**April 19, 1995** [time and place to be announced]. Lecture by U of I adjunct professor of art history Muriel "Mickey" Scheinman on "Art in the University of Illinois Environment: Inspiring, Stimulating, Puzzling." Reception to follow in the Rare Book and Special Collections Library.

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