

Indiana University
Report to the Digital Library Federation
April, 2005

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I. Collections, services, and systems

A. Collections

Charles Cushman Photograph Collection

With funding from an Institute of Museum and Library Services National Leadership Grant, the IU Digital Library Program digitized approximately 14,500 color slides from the Charles Cushman collection in the Indiana University Archives. The completed collection web site includes digitized versions of all images, two illustrated essays putting the images in photographic and urban history contexts, a timeline of the history of Mr. Cushman and the image collection, and a additional contextual and technical information about the collection and the Web site. The site features several innovations, including faceted browsing on subject, location, date, and genre; and a search engine that uses the relationships between subject headings to retrieve more relevant results for users and suggest related searches for further exploration.

<http://www.dlib.indiana.edu/collections/cushman/>

Film Literature Index Online

Film Literature Index Online (1976-2001). A July 2002 grant from the National Endowment for the Humanities for \$239,343 provided for converting to electronic format 700,000 entries of an authoritative paper-based film and television literature index, 1976-2001. Working in partnership with the State University of New York – Albany, where the index is edited, IU has nearly completed the project. The index editors were unable to locate readable electronic files for six years during the period 1976-1988. Rekeying and XML encoding of these volumes was outsourced; these data have been parsed into the existing database. A Preview site was launched in November 2004, which has already

generated positive response. Errors in the data that came from the paper index continue to be corrected and improvements are being made in response time for complex searches.
<http://www.dlib.indiana.edu/reference/fli/>

Indiana University Sheet Music

With funding from the Library's NEH Challenge Grant Endowment, sheet music is being digitized from two Lilly Library sheet music collections. The Indiana University Sheet Music web site, launched in April 2004, provides access to metadata and some digital images from these collections. Users may search or browse records for more than 24,000 pieces in the Sam DeVincent Collection of American Sheet Music and the Starr Sheet Music Collection. Digital images are available for approximately 3,400 pieces of sheet music, with more to be added throughout the next three years (See IN Harmony below).
<http://www.lettrs.indiana.edu/s/sheetmusic/>

Ethnomusicological Video for Instruction and Analysis (EVIA) Digital Archive

The Indiana University Department of Folklore and Ethnomusicology and Archives of Traditional Music, in partnership with the University of Michigan, has received several grants from the Mellon Foundation to develop a digital archive of ethnomusicology field recordings, including a library of content and tools for scholars and teachers to annotate video recordings and use them in teaching, beginning in 2002. The Digital Library Program is providing technical support for the project. In 2004, the project team digitized approximately 80 hours of video collected in the field by ethnomusicologists and successfully developed and implemented a video segmentation and annotation tool. This tool was used by a group of ethnomusicologists who came to IU in Summer 2004 to annotate the videos that they had contributed to the archive, and makes use of the METS XML standard with embedded MODS records to store information on video segments and annotations.
<http://www.indiana.edu/~eviada/>

The Chymistry of Sir Isaac Newton

In August 2003, the National Science Foundation awarded a grant to Prof. William Newman, department of history and philosophy of science, to digitize and publish online the alchemical manuscripts of Sir Isaac Newton, including annotations tools for encoded text and page images of manuscripts. Summer 2004 marked the completion of the first year of this three-year project. Highlights include a seminar on Newton's alchemy taught by history and philosophy of science faculty and Digital Library Program staff. As part of the seminar, graduate students transcribed and encoded about 50 pages of Newton's manuscripts. A post-doctorate researcher transcribed and encoded an important Newton notebook of more than 200 pages, which were checked against the 250 transcribed and encoded pages. This comprises about a fourth of the 1,000 pages IU will digitize over the three-year project.
<http://www.dlib.indiana.edu/collections/newton>

IN Harmony: Sheet Music from Indiana

An IMLS (National Leadership Grants — Library-Museum Partnership) grant for \$343,000 provides for developing tools for libraries and museums to catalog their sheet music collections, digitize sheet music, and create a single Web site to provide online access to 10,000 pieces of digitized sheet music, about half from IU. This project involves a four-way partnership with the Indiana State Library, the Indiana State Museum, and the Indiana Historical Society. The grant period runs from October 1, 2004 through September 30, 2007.

<http://www.dlib.indiana.edu/projects/inharmony/>

B. Services

Services may include user-profiling services, online reference services, services supporting interlibrary loan or the use of electronic reserves. Details below.

Sirsi Single Search

The IU Libraries are in the process of implementing Sirsi's Single Search product to allow users to search across multiple electronic database resources, to quickly find full text articles, or to further search within the database's native interface. This service will also be implemented at the six regional campuses during Spring 2005. Bloomington launched a beta test of a general set of resources, plus a group of psychology resources to users in December. Based on feedback, focus group input, and new features in the software, enhancements will be implemented during Spring 2005. Technical staff are being trained in order to integrate Single Search functionality directly into the IUB Library Web site and Oncourse CL (course management system) for all campuses.

Video E-Reserves

In Spring 2004 the Digital Library Program coordinated a pilot project to deliver streaming video to two classes through the IU Libraries E-Reserves system. The IU Libraries Media/Reserves department provided contact with faculty for the project and the Digital Media Network Services group in University Information Technology Services provided video streaming hosting and consultation. Twelve hours of video were digitized and transcoded for the Spring pilot, and an interface and associated help and problem report files were developed for accessing the video. Each video was streamed to users at three different bit rates in both MPEG-4 (QuickTime) and RealVideo8 formats. Access logs and user surveys showed enough interest in the project for the team to offer an expanded pilot in Fall 2004 with more courses and more video. In Spring 2005 the two pilot tests will be evaluated as the feasibility of offering this service on an ongoing basis is explored.

Variations and Variations2

The Variations digital music library system, first developed and deployed in 1996 and managed as a partnership between the Digital Library Program and Music Library, continues to provide access to over 10,000 sound recordings and nearly 400 musical scores to School of Music students and faculty in support of instructional and research needs. Variations delivered 184,649 sound file accesses between July 1, 2003 and June 30, 2004. To date, Music Library staff have digitized approximately 9,813 sound recordings and 384 scores.

The Digital Library Program, working with faculty and staff in several IU departments, has continued to develop its new generation Variations2 digital music library and learning system via research funding from a Digital Libraries Initiative Phase 2 (DLI2) grant from the NSF and NEH. The Variations2 system provides a music-specific bibliographic search interface, a work-oriented music metadata model, tools for creating bookmarks and playlists, and tools for annotating sound recordings and scores. Variations2 will be placed into production in place of the present Variations system in Summer 2005.

<http://www.dlib.indiana.edu/variations/>

<http://variations2.indiana.edu/>

Library Electronic Text Resource Service (LETRS)

During FY 2003/2004 LETRS continued to support the DLP's online electronic text collections and collections hosted in the LETRS Humanities Computing Lab. LETRS staff also provided support for the electronic text components of a number of DLP projects. For instance, LETRS consultants participated heavily in the development of the Film Literature Index (FLI) project, performing data editing and research to correct problems and deficiencies in the original data. LETRS consultants also performed XML/TEI markup on texts used to create a prototype of the Indiana Authors project, which was submitted for an IMLS grant. In the annual UITS user survey, LETRS consistently among the top one or two RAC units in user satisfaction, and in 2004 LETRS received a user satisfaction rate of 95%.

<http://www.indiana.edu/~letrs/>

Digital Media and Image Center (DMIC)

This year was a time of continued growth for the DMIC, the DLP's primary digitization facility. Most important, the .5 FTE Digital Imaging Specialist was converted to a full-time FTE position and the newly-revised position was filled. DMIC continued its commitment to high-quality imaging and quality control and served as a consultation resource for others in the University. The staff consulted on imaging issues with numerous others, including the Lilly Library, the IU Art Museum, the Fine Arts Slide Library, University Archives, the IU Music Library, the Liberia Collections Project, the Black Film Center Archive, and IU East.

<http://www.dlib.indiana.edu/dmic/>

DIDO Image Bank

In January 2004, the Digital Library Program released to the Fine Arts Slide Library a test version of an “Image Processing System” designed to record technical metadata about digitized images, enforce digitization specifications for the project, create derivative images for Web delivery, and archive master images to IU’s Massive Data Storage Service (MDSS). This system has allowed the Slide Library to stop manually creating derivative images for the Web and burning TIFF images to CD ROM for storage, has improved the long-term sustainability of digitized images in the collection, and has continued the increase in image quality in the DIDO system. This system will be extended to other digitization projects for which the DLP manages digitized content, and used as a basis for further developing and standardizing DMIC digitization activities. <http://www.dlib.indiana.edu/collections/dido/>

C. Systems

Systems may include reports by members on their development, implementation or experience of various applications and software whether developed locally, acquired from a third party. etc. Reports might focus on integrated library systems, application specific software or software components, applications developed by members for specific functions. Details below.

Open Archives Initiative (OAI) Data Provider

The IU DLP continued to maintain and improve its Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH) Data Provider, allowing metadata for DLP collections to be shared with any interested OAI Service Provider. Metadata for texts from the Wright American Fiction and Victorian Women Writers’ projects were added to the Data Provider in 2004, along with MODS records for the Charles Cushman Photograph Collection, to supplement the Dublin Core records already available. Metadata records for items in IU Sheet Music were harvested by the Sheet Music Consortium during Summer 2004.

<http://digital.library.ucla.edu/sheetmusic/>

II. Projects and programs

A. Projects

New Project Announcements

Indiana University Libraries completed work in a partnership with Stanford University, New York Public Library, and Emory University on the LOCKSS (Lots of Copies Keep Stuff Safe) project. LOCKSS is a system that allows libraries to safeguard their subscription Web journals. It was designed and is being implemented by Stanford University Libraries with funding from the National Science Foundation, Sun Microsystems, and the Andrew W. Mellon Foundation. LOCKSS provides tools that use local, library-controlled computers to safeguard readers' long-term access to Web-based journals. LOCKSS is intended to demonstrate that it is safe for librarians to subscribe to journals' Web editions and cancel the paper editions.

<http://lockss.stanford.edu/>

B. Programs

Digital Library Brown Bag Series

Beginning in Fall 2003, the Digital Library Program sponsored, with the School of Library and Information Science, a series of lunchtime brown bag presentations dealing with a variety of digital library projects, issues, and research. The Digital Library Brown Bag Series Archive is available, with PowerPoint and other materials from the 17 programs in the 2003/2004 series. The program, which generated extremely positive feedback, has continued in 2004/2005.

<http://www.dlib.indiana.edu/workshops/bbfall2004.htm>.

Building a Digital Library Education Program

In 2004 the Digital Library Program received a grant from the Institute for Museum and Library Services (IMLS) program Librarians for the 21st Century to create a digital library specialization for master's and post-master's library science students in the School of Library and Information Science (SLIS). The three-year project involves a four-way partnership with SLIS, the School of Library and Information Science at University of Illinois Urbana-Champaign, and the digital library program at UIUC. This project will fund curriculum research and development, a digital library education conference in each of the three years, and digital library internships and residencies in the digital library programs of both institutions. The data gathering phase of the project, now underway, will lead to the possible modification of existing courses and the development of new courses to be taught in fall 2005.

<http://lair.indiana.edu/research/dlib/>

III. Specific Digital Library Challenges

Communicating the depth and range of Digital Library Program activities

Our online collections and other services are very visible to our colleagues and patrons. Less visible and more difficult to communicate is the behind-the-scenes work that goes into making these collections and services--digitization, digital archiving and migration, metadata creation, text encoding, systems design and development, negotiations and business dealings with vendors, etc. Communicating the complex range of activities necessary to develop and maintain quality digital collections and digital library infrastructure remains a challenge and sometimes leads to misunderstandings with colleagues and partners who have difficulty distinguishing a digital library collection from a simple web page and expect the process to be simpler and quicker.

IV. Digital library publications, policies, working papers, and other documents

Publications

- Brancolini, Kristine, Michelle Dalmau, and John A. Walsh. "Russian Periodical Index Digital Project (Letopis' zhurnal'nykh statei, 1956-1975)." *The Serials Librarian* 47.3 (2004): 59-78.
- Kumar, Amit, Alejandro Bia, Martin Holmes, Susan Schreibman, Ray Siemens, and John A. Walsh. "<teiPublisher>: Bridging the Gap Between a Simple Set of Structured Documents and a Functional Digital Library." *Research and Advanced Technology for Digital Libraries: 8th European Conference, ECDL 2004, Bath, UK, September 12-17, 2004. Proceedings*. Ed. Rachel Heery and Liz Lyon. Lecture Notes in Computer Science 3232. Heidelberg: Springer-Verlag, 2005. 432-441.
- Notess, Mark, Jenn Riley, and Harriette Hemmasi. "From Abstract to Virtual Entities: Implementation of Work-Based Searching in a Multimedia Digital Library." *Research and Advanced Technology for Digital Libraries: 8th European Conference, ECDL 2004, Bath, UK, September 12-17, 2004. Proceedings*. Ed. Rachel Heery and Liz Lyon. Lecture Notes in Computer Science 3232. Heidelberg: Springer-Verlag, 2005. 157-167.

Presentations, Panels, etc.

- Dunn, Jon. "Fedora: Selecting and Implementing an Open Source Software Digital Repository." RLG Members' Forum, Chicago, IL, December 12, 2003. <http://www.rlg.org/events/haveandhold2003/dunn.pdf>
- Dunn, Jon. "Collaborative Digital Video Development." SURA/ViDe 6th Annual Digital Video Workshop, Indianapolis, IN, March 2004. Panel chair.
- Dunn, Jon. "Making Music Information Retrieval Evaluation Scenarios a Reality." ISMIR: International Conference on Music Information Retrieval, Baltimore, MD, October 2003.
- Dunn, Jon W. "When Audio Becomes Data: The Management and Storage of Digital Audio Files." Association of Recorded Sound Collections Annual Conference, Austin, Texas, March 2005. Invited presentation.
- Kumar, Amit and John A. Walsh. "<teiPublisher>: A Repository Management System for TEI Documents." Text Encoding Initiative (TEI) Members Meeting. Johns Hopkins University, Baltimore. 22-23 October 2004.
- Kumar, Amit, Susan Schreibman, Stewart Arneil, Alejandro Bia, Martin Holmes, and John Walsh. "<teiPublisher>: A Repository Management System for TEI Documents." Joint International Conference of the Association for Computers and the Humanities (ACH) and the Association for Literary and Linguistic Computing (ALLC). University of Göteborg, Göteborg, Sweden. 11-16 June, 2004.
- Notess, Mark, and Jon W. Dunn. "Variations2: Improving Music Findability in a Digital Library Through Work-Centric Metadata." ACM/IEEE-CS Joint Conference on Digital Libraries, Tucson, Arizona, June 2004. Demonstration.
- Riley, Jenn. Score Scanning Workshop. Conference on Music & Technology in the Liberal Arts Environment, June 21-22, 2004, Hamilton College, Clinton, NY.
- Scherle, Ryan and Donald Byrd. "The Anatomy of a Bibliographic Search System for Music." ISMIR 2004: 5th International Conference on Music Information Retrieval, Barcelona, Spain, October 10-14, 2004. <http://variations2.indiana.edu/pdf/ismir04search.pdf>
- Walsh, John A. "Topic Maps and TEI-Encoded Literary Texts." Digital Resources for the Humanities (DRH) 2004. University of Newcastle upon Tyne, Newcastle, England, UK. 5-8 September 2004.