PRELIMINARY PROGRAM

Archiving2009

May 4-7, 2009 Arlington, VA

www.imaging.org/conferences/archiving2009



General Chair: William LeFurgy, Library of Congress

Cooperating Societies

ALA ALCTS Association for Library Collections and Technical Serv CNI Coalition for Networked Information DEF Digital Library Federation DPC Digital Preservation Coalition SCC Inter-Society Color Council ACN Museum Computer Network DCLC Online Computer Library Center DPS Royal Photographic Society SAA Society of American Archivists

Sponsored by Society for Imaging Science and Technology



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Conference Overview

The sixth IS&T Archiving Conference offers an outstanding program.

An international group of experts from industry, academia, government, archives, libraries, and museums will share the latest information about digital stewardship and preservation imaging.

Each day begins with a keynote address from leading experts:

- Tuesday: Steve Knight, associate director, National Digital Library, National Library of New Zealand: Building a Digital Archive and Digital Preservation Management Solution
- Wednesday: Dan Clancy, engineering director, Google Book Search Project: Present Status and Next Steps for the Google Book Search Project
- Thursday: Clifford Lynch, executive director, Coalition for Networked Information: Challenges and Opportunities for Digital Stewardship in the Era of Hope and Crisis

The program includes two dozen oral presentations and a host of interactive papers. Interactive papers are a key feature of the conference, providing an opportunity for authors and attendees to delve into issues in an informal setting. Sessions will take place at the Hilton Crystal City at Washington Reagan National Airport in Arlington, VA, which is minutes away via Metro or car from the heart of Washington, DC.

In addition to a strong program, the meeting features a fine series of short courses (see page 9) that offer authoritative information about a number of timely topics. We are especially pleased to have an impressive array of instructors for the classes.

The conference is an excellent venue to hear about practical tools, services, and other resources that can be put to use right now to protect our digital heritage. There are also many networking opportunities to meet a broad range of people working in the field.

Attendees will also have the opportunity to tour area cultural heritage institutions; details are found on page 3.

Join us for this useful and stimulating meeting to learn about the latest developments in the world of digital stewardship and preservation imaging.

> — William G. LeFurgy Archiving 2009 General Chair

Conference At-a-Glance

All technical sessions will take place at the Hilton Crystal City (see page 3)

Registration Hours

Monday May 4, 7:00 am – 6:00 pm Tuesday May 5, 7:30 – 6:00 pm Wednesday May 6, 8:00 am – 5:00 pm Thursday May 7, 8:00 – 11:15 am

Monday, May 4

- Short Course Program (see below)
- Welcome Reception: Crystal Ballroom

Tuesday, May 5

- Keynote: Building a Digital Archive and Digital Preservation Management Solution
- Technical Session: Digital Collection Stewardship
- Interactive Session I
- Conference Reception

Wednesday, May 6

- Keynote: Present Status and Next Steps for the Google Book Search Project
- Exhibits

- Stewardship con't. • Technical Session: Imaging and Preservation
 - Interactive Session II

Thursday, May 7

 Keynote: Challenges and Opportunities for Digital Stewardship in the Era of Hope and Crisis

Technical Session: Digital Collection

- Technical Session: Imaging and Preservation con't.
- Optional Behind-the-Scenes Tours (see p. 3)

Short Courses At-a-Glance Track 1: Building Digital Collections



Archiving 2009

Venue

Archiving 2009 will take place at the Crystal City Hilton, located in the Crystal City section of Arlington, Virginia. The Hotel offers free shuttle service from Reagan National Airport (DCA), which is only one mile away. For reservation details see page 16. Other airports to consider flying into are BWI (Baltimore Washington International Airport) and IAD (Washington Dulles International Airport). Both airports provide shuttle service to the Metro system; you may also get a shuttle to the train station at BWI. More information on airports and ground service can be accessed at

BWI: www.bwiairport.com DCA: www.mwaa.com/national/ IAD: www.metwashairports.com/Dulles

The hotel is located three blocks from the Crystal City Metro Station (yellow or

Links to Area Information

- For more information on DC, visit: www.washington.org
- Local transportation details can be found at www.wmata.com
- To learn more about current exhibits and happenings at the Smithsonian and other museums and cultural venues, go to: www.si.edu; www.museumspot.com/cities/dc.htm; or www.culturaltourismdc.org/ calendar2532/calendar.htm
- Lists of the city's overall best restaurants and "best cheap eats" can be found at www.washingtonian.com/sections/ restaurants/index.html

blue line), and offers parking at the rate of \$24/day with in/out privileges or \$4/hour. There are numerous restaurants at various price points within a few block radius. While the Hilton does offer Internet access for \$12.95/day, access in public areas is not guaranteed.

Behind-the-Scenes Cultural Institution Tours Thursday, May 7, 2009

Archiving 2009 is pleased to offer the following tours the afternoon of May 7th. Times and lengths will vary, but will be announced approximately one month before the conference. In general they will end by 5 pm. See note on page 4 for details on participating.

National Gallery of Art (NGA) Archives and Digital Imaging and Visual Services

Participants will visit two NGA departments: the studios for imaging works of art including paintings, 3D objects, and works on paper; and the museum archives, which is responsible for the museum's historical records including digital and analog historical photographs and other visual materials. Digital imaging staff will show examples of work done for exhibition support and publication proofing, as well as image storage and digital asset management work flow. Recent pre-press tests using GRACoL certified prints and plans for multi-spectral imaging will be discussed.

Museum archives staff will demonstrate and discuss the Gallery's developing archival system for jointly managing analog and digital images and related strategies for developing a secure archival digital repository and ensuring long-term preservation of historical film materials.

Note: This tour is Metro accessible.

tour options continued

National Audiovisual Conservation Center (NAVCC) of the Library of Congress

NAVCC is the first centralized facility in the US especially planned and designed for the acquisition, cataloging, storage, and preservation of the nation's collection of moving images and recorded sounds. The tour will include the NAVCC processing and storage facilities, reformatting laboratories, and customized theaters for audio and visual productions.

Please note: This facility is located approximately two hours from the conference site. A bus is being arranged to take tour participants there and back. A transportation fee, including a box lunch, in the range of \$40 will be charged. Access to NAVCC is free.

National Library of Medicine at the National Institutes of Health

The first hour of the tour will be spent in the Visitors' Center where NLM staff will give a presentations on ongoing work; the second hour will be a tour of NLM, highlighting the historic rare books and manuscript collection, as well as a medical exhibit currently on display.

Note: Tour is Metro accessible, although not located in downtown DC. Visitors go through a security procedure that takes 20 minutes. Information at www.lhncbc.nlm.nih.gov.

National Anthropological Archives at the Museum Support Center in Suitland, MD

Visit the collections of the National Anthropological (NAA) Archives, Human Studies Film Archives (HSFA), and the artifact collections of the National Museum of Natural History, include about 2.2 million specimens in archaeology, ethnology, and physical anthropology. NAA has one of the nation's premier collections of endangered languages documentation and HSFA is devoted to preserving, document-

Special Note on Tours

Advance registration is required. The number of participants is limited and reserved on a first come/first served basis. Everyone who registers by the early registration deadline will receive details on the tours and how to sign up for them immediately following the early registration deadline. Others will receive them as they register.

All tours are free unless indicated; participants are responsible for getting to the tour site by the stated time.

ing, and providing access to moving image materials of anthropological interest.

Note: You will need to take the Metro to a downtown location and then board a free shuttle to get to this facility.

Special Media Preservation Division Reformatting Labs of the National Archives National Archives at College Park, MD

These Labs provide reformatting services for all types of original records (textual, microfilm, audio and video recordings, motion pictures, still and aerial photos, maps, architectural/engineering plans, etc.), and preservation services (inspection and repair) for dynamic media and selected photographic film formats. The Labs continue with photographic copying/duplication in appropriate areas, and have been working with digitization for more than 15 years. Recently, the Labs have been implementing a transition to digital workflows and new digitizing equipment in all lab areas. The tour will include a brief tour of the National Archives at College Park building and all reformatting lab areas.

Note: You will need to take the Metro to a downtown location and then board a free shuttle to get to this facility.

Technical Program

Tuesday May 5, 2009

8:40 - 9:30 AM KEYNOTE SESSION

Session Chair: Bill LeFurgy, Library of Congress

Building a Digital Archive and Digital Preservation Management Solution, Steve Knight, National Library of New Zealand (New Zealand)

9:30 - 11:50 AM DIGITAL COLLECTION STEWARDSHIP

Session Chairs: Robert Horton, Minnesota Historical Society (USA), and Astrid Verheusen, Koninklijke Bibliotheek (Netherlands)

Economically Sustainable Digital

Preservation, Brian Lavoie, OCLC, and Fran Berman, San Diego Supercomputer Center (USA)

This Elephant Never Forgets: Preservation, Cooperation, and the Making of HathiTrust Digital Library, Jeremy York, University of Michigan (USA)

Quality of Operations for Research Data Repositories – Data Seal of Approval

Assessment, Henk Harmsen, Data Archiving & Networked Services - DANS (The Netherlands)

Electronic Records Services for Archival Preservation, Lisa Weber and Haseen Uddin, US National Archives and Records Administration (USA)

Generating Metadata for Digital Preservation: The Chronopolis Scenario, Arwen Hutt,¹ Ardys Kozbial,¹ David Minor,² Don Suttonü,² and Bradley Westbrook¹; ¹University of California San Diego Libraries and ²San Diego Supercomputer Center (USA)

> Interactive Paper Previews I followed by lunch

2:00 - 4:30 PM DIGITAL COLLECTION STEWARDSHIP

Session Chairs: Maria Guercio, University of Urbino (Italy), and Katherine Skinner, Emory University (USA)

A Selection and Archiving Strategy for Science Records, John L. Faundeen, US Geological Survey (USA) Preserving Geospatial Data: The National Geospatial Digital Archive's Approach,

Greg Janée, University of California, Santa Barbara (USA)

Assessing the Utility of Current Format Registry Efforts for Geospatial Formats,

Nancy J. Hoebelheinrich, Stanford University Libraries, and Natalie K. Munn, Content Innovations, LLC (USA)

Meeting the Preservation Demand Responsibly = Lowering the Ingest Bar? (Focal),

Andrea Goethals and Spencer McEwen, Harvard University Library (USA) Digital Preservation: Using the E Mail Account XML Schema, Riccardo Ferrante and Lynda Schmitz Fuhrig, Smithsonian Institution (USA)

4:30 - 6:00 PM INTERACTIVE SESSION 1

New Developments in Using Holographic Data Storage Technology for Archive Storage & Distribution, Art Rancis, InPhase Technologies (USA) The FamilySearch (LDS Church) Process to Capture, Process, Index, and Host Millions of Images and Metadata, Richard J. Laxman, FamilySearch (USA) Study of Contemporary Art Preservation with Digitization, Clotilde Boust, Matthieu Dubail, and Cécile Darzord, Centre de Recherche et de Restauration des Musées de France (France) Preparing for the Future as We Build Collections, Jody L. DeRidder, University of Alabama (USA)

Digital Archive Program of the Songjiang Battle Array, Yung-Cheng Hsieh, Hui-Wen Cheng, and Ya-Wen Xiao, National Taiwan University of Arts (Taiwan) Archives in the Clouds: Cloud Computing, Software as a Service, and New Directions for the Omeka Project, Tom Scheinfeldt, George Mason University (USA) The Year of Content: Learning from Experience Transferring Digital Content across the NDIIPP Network, Michelle Gallinger and Leslie Johnston, Library of Congress (USA) Search and Access Strategies for Web Archives, Sangchul Song and Joseph Jaja, University of Maryland (USA) Creating a Business Plan for the Archival

Preservation of Geospatial Data,

Butch Lazorchak,¹ Zsolt Nagy,² Dennis Goreham,³ Steven Morris,⁴ Alec Bethune,²

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*US address membership; non-US address is \$105.

and Matt Peters³; ¹Library of Congress, ²North Carolina Center for Geographic Information and Analysis, ³Utah Automated Geographic Reference Center, and ⁴North Carolina State University Libraries (USA)

Digital Data Storage on Microfilm – The MILLENNIUM Project: Hardware Realization, Dominik Giel. Andreas Hofmann. and

Wenzel Salzmann, Fraunhofer Institute for Physical Measurement Techniques - IPM (Germany)

Long-Term Preservation and Certification: Civil Status in a Digital Environment,

Maurizio Talamo, Guido Maria Marinelli, Alessandra Aversa, and Sonja Moceri, Università degli Studi di Roma "Tor Vergata" (Italy)

Avoiding the Calf-Path: Digital Preservation Readiness for Growing Collections and Distributed Preservation Networks, Martin Halbert, Emory University; Gail McMillan, Virginia Tech; and Katherine Skinner, Emory University (USA)

Neural Networks Based Image Compression Algorithm, Ahmed W. El-Din Sallam, Egyptian Armed Forces; M. Shaarawy, Helwan University; and Ismail A. Taha, Ain Shemes University (Egypt)

Defining Digital Archaeology,

Sergio Gregorio, University of Basel and Swiss Federal Chancellery (Switzerland) Interoperability Between XML-based Metadata Systems and the Web Search Engines, S. M. Taheri, Iranian Library and Information Association (Iran)

On the Value of Two-Dimensional Fixed-Length Modulation Codes for Digital Data Storage on Microfilm, Christoph Voges, Mischa Siekmann, and Tim Fingscheidt, Braunschweig Technical University (Germany)

Wednesday May 6, 2009

8:40 - 9:30 AM KEYNOTE SESSION

Session Chair: Bill LeFurgy, Library of Congress

Present Status and Next Steps for the Google Book Search Project, Dan Clancy, Google (USA)

9:30 - 10:30 AM DIGITAL COLLECTION STEWARDSHIP CON'T

Session Chairs: Maria Guercio, University of Urbino (Italy), and Katherine Skinner, Emory University (USA)

One Man's Obsoleteness is Another Man's Innovation: A Risk Analysis Methodology for Digital Collections, Kevin De Vorsey and Peter McKinney, National Library of New Zealand (New Zealand)

A System for Automated Extraction of Metadata from Scanned Documents Using Layout Recognition and String Pattern Search Models, Dharitri Misra, Siyuan Chen, and George R. Thoma, National Library of Medicine (USA)

Barriers to Adopting PREMIS in Cultural Heritage Institutions: An Exploratory Study, Daniel Gelaw Alemneh, University of North Texas (USA)

11:10 AM - 4:30 PM IMAGING AND PRESERVATION

Session Chairs: Erik Landsberg, Museum of Modern Art, and Phil Michel, Library of Congress (USA)

Digitising the Dead Sea Scrolls,

Simon Tanner, King's College London (UK), and Greg Bearman, Snapshot Spectra (USA) **Preparing for the Image Literate Decade**, Don Williams, Image Science Associates, and Peter D. Burns, Carestream Health, Inc. (USA)

> Interactive Paper Previews II followed by lunch

Metamorfoze Preservation Imaging Guidelines "One Size Fits All",

Hans van Dormolen, National Library of the Netherlands (The Netherlands) Survey of Digital Print Experience within Libraries, Archives, and Museums,

Daniel Burge and Douglas Nishimura, Image Permanence Institute at the Rochester Institute of Technology; and Mirasol Estrada, George Eastman House International Museum of Photography and Film (USA)

Management of Spectral Imaging Archives for Scientific Preservation Studies,

Doug Emery, Emery IT; Fenella G. France, Library of Congress; and Michael B. Toth, R.B. Toth Associates (USA)

Image Quality and End-User Decision Making (Focal), Paul Conway, University

of Michigan (USA) **The Digital Preservation of Uncompressed and Losslessly Compressed Archival Video**, Stephen Gray, IISC Digital Media (UK)

4:30 - 6:00 PM INTERACTIVE SESSION 2

RDF Data Model in Digital Archive Systems and Applications, Jussi Juvén and Osmo Palonen, Mikkeli University of Applied Sciences (Finland)

Legal Agreements Governing Archiving Partnerships: The NGDA Approach,

Julie Sweetkind-Singer and Tracey Erwin, Stanford University; and Mary L. Larsgaard, University of California, Santa Barbara (USA) Ingestion and Indigestion: Negotiating Between States in the Digital Cloud,

Jerry Handfield, Washington State Archives (USA)

Automatic Building Up Documents Taxonomy Through Metadata Analysis, Maurizio Talamo, Alessandra Aversa, Giorgio Gambosi, and Sonja Moceri, University of Rome "Tor Vergata" (Italy)

Communicating Digital Preservation, Abigail Potter and Butch Lazorchak, Library of Congress (USA) Camera Scans—Using a Digital Camera as a Film Scanner, Peter Kroah (USA) Best Practices and Recommendations for Digital Images to Microfilm, Robert Breslawski, Eastman Kodak Company (USA) Digitization Workflow for Color Transparency Collections, M. R. V. Sahyun and Irene M. N. Sahyun, consultants (USA)

A Cost Model for Permanent Access to Research Data, Anna S. Palaiologk,^{1, 2} Heiko D. Tjalsma,¹ Laurents B. Sesink,¹ and Anastasios A. Economides;² ¹Data Archiving and Networked Services - DANS (The Netherlands) and ²University of Macedonia (Greece) Incunabula Basilea: A Web 2.0 Application as Research Tool to Early Prints, Patrick Ryf and Lukas Rosenthaler, University of Basel (Switzerland)

An Inexpensive Web-Based Finding-Identification Aid for Nitrate Negatives, Employing User-Supplied Information,

Andrew Rodger, Library and Archives Canada (Canada)

Advanced Digital Image Preservation Data Management Architectures, Wo Chang, National Institute of Standards and Technology (USA)

A Case Study in Distributed Collection Monitoring and Auditing Using the Audit Control Environment (ACE), Michael Smorul and Joseph JaJa, University of Maryland (USA) Digital Data Storage on Microfilm—The MILLENNIUM Project: Signal and Information Processing, Christoph Voges, Volker Märgner, and Tim Fingscheidt, Braunschweig Technical University (Germany)

Creating and Managing Digital Collection at National Archives of Bangladesh: A Developing Country Perspective,

Nafiz Zaman Shuva, University of Dhaka (Bangladesh)

Restoration of Degraded Microfilm Documents for Long-Term Archival Using Waferfiche™ Technology, Basak Oztan and

Gaurav Sharma, University of Rochester; and Ajay Pasupuleti and P. R. Mukund, NanoArk Corporation (USA)

Photo Books—A New Take on an Old Preservation Technology, James Peyton, International Imaging Industry Association (I3A) (USA)

Thursday May 7, 2009

8:40 - 9:30 AM KEYNOTE SESSION Session Chair: Bill LeFurgy, Library of Congress

Challenges and Opportunities for Digital Stewardship in the Era of Hope and Crisis, Clifford Lynch, Coalition for Networked Information (USA)

9:30 AM - 12:20 PM IMAGING AND PRESERVATION CON'T

Session Chairs: Stephanie Ogeneski, Smithsonian Institution, and Kate Zwaard, US Government Printing Office (USA)

Federal Digitization—Moving to Common Guidelines, J. Michael Stelmach, Library of Congress (USA)

The Lifecycle of Embedded Image Metadata within Digital Photographs: Challenges and Best Practices (or The Secret Life of Photo Metadata), David Riecks, Stock Artists Alliance, and Phil Michel, Library of Congress (USA) A Status Report on JPEG 2000 Implementation for Still Images: The UConn Survey, David B. Lowe and Michael J. Bennett, University of Connecticut Libraries (USA)

From Imaging to Access: Effective

Preservation of Legacy Removable Media, Kam Woods and Geoffrey Brown, Indiana University (USA)

Effects on Color Management When Using a Glass Platen to Flatten Book Pages or Documents While Capturing Images with a Digital Still Camera, Paul Howell and Miranda Howard, Western Michigan University (USA)

Implementing Imaging Standards: The Longest Yard, Scott Geffert, Center for Digital

Imaging Inc. (USA)

Short Course Program: Monday, May 4, 2009

TRACK 1: BUILDING DIGITAL COLLECTIONS

T1A: Web Harvesting with the Web Curator Tool 8:00 -12:15 (4 hours)

Instructor: Gordon Paynter, National Library of New Zealand

The Web Curator Tool is a tool for managing the selective web harvesting process. It was developed for use by non-technical users in libraries, and is used extensively at a number of national and other libraries.

This course introduces the main principles of the Web Curator Tool, and then works through an example to illustrate the tool workflow. It then returns to four major Web Curator Tool components—Harvest Authorisation, Targets, the Harvest Queue, and Target Instances—for a detailed look with more complex examples and scope for questions. The course concludes with a brief recap and discussion of the best ways to get assistance using the tool.

Benefits

This course will enable the attendee to:

- Learn the purpose, philosophy, and underlying concepts of the Web Curator Tool
- Understand the importance of harvest authorizations and how they are stored and enforced in the tool
- Know how to select, describe, scope, and schedule a website for harvest by the Web Curator Tool, and what it means to approve a website for harvest
- Know how to quality review a harvested website and how to decide whether a harvest should be rejected as incomplete or endorsed for inclusion in a digital archive
- Appreciate how the Harvest Queue works and how to manage it when resources are limited

• Know where to go for help and advice with the Web Curator Tool

Intended Audience

Library professionals who have an interest in selective web archiving and knowledge of the legal and technical challenges of web harvesting. Experience with the Web Curator Tool or other web harvesting tools is helpful, but not necessary.

Gordon W. Paynter works in the Innovation Centre at the National Library of New Zealand. His involvement in web archiving started when he led the team that developed the Web Curator Tool for the National Library of New Zealand and the British Library, and most recently includes a national domain harvest with Internet Archive. He continues to work on web archiving and serves on the technical committee of the International Internet Preservation Consortium.

T1B: The \$5,000 Digitization Solution 1:45 - 6:00 (4 hours) Instructor: Ken Allen, Ken Allen Studios

Small digitization projects develop institutional knowledge and provide use cases to promote, as well as procure, funding for additional projects or expansion of a digital library.

This course demonstrates the capabilities and benefits of a small, low-impact digitization project. Learn about the advantages, limitations, ideal applications, and benefits of a \$5,000 digitization project; understand the process of digitization and how to manage your project. One possible solution is demonstrated, and alternate configurations are discussed.

Benefits

This course will enable the attendee to:

- Define a low-cost digitization project
- Identify photographic objects appropri-

ate for a low-cost system based on its limitations

- Understand the basics of color management, including creating profiles
- Understand the basics of emerging practices in digitization projects
- Implement and operate the system to create archival digital scans guided by emerging practices

Intended Audience

Curators, collections managers, archivists, rights, and reproduction staff. Basic computer knowledge and Adobe Photoshop experience helpful.

Ken Allen has a degree in imaging and photographic technology from RIT: After spending five years at Eastman Kodak Company, he worked as a product manager for digital cameras at Leaf. His participation in the Kodak PhotoCD project, respect for film and historic photographs since its earliest years, gives him his depth of knowledge in digitization. Now, more than 30% of the business at Ken Allen Studios is helping museums make the transition to digital archives.

TRACK 2: PERFORMANCE AND VALIDATION

T2A: Scanner & Camera Imaging Performance Workshop Course 8:00 - 3:45 (6 hours)

Instructors: Don Williams, consultant, and Peter Burns, Carestream Health, Inc.

This new workshop evolved from a series of courses taught at previous Archiving conferences. The course begins by introducing several imaging principles that provide a background to understanding imaging performance in digital acquisition and conversion. It then describes several international standards for scanner and digital camera performance, and how they can be adapted for a museum or library environments. Several common problems faced by those providing imaging services, or seeking to improve image content are detailed. In each of the cases addressed, discussions focus on the selection and development of test plans, performance measurements, and simple analysis. Attendees have the opportunity to perform evaluations using provided analysis software, illustrating the uses and limitations for the methods described.

Benefits

This course will enable the attendee to: • Hold suppliers more accountable for

- imaging performance
- Describe several existing standards to characterize scanner and camera performance
- Connect today's vernacular performance terms (e.g., dpi, bit depth, gamma, etc.) to science-based performance metrics
- Evaluate manufacturers' claims of resolution, dynamic range, and noise
- Identify sources of performance variation in digital image conversion
- Understand user requirements for analysis software tools
- Develop test plans for performance investigation

Intended Audience

Managers, engineers, and technicians interested in evaluating and monitoring scanner and camera performance. A general knowledge of digital scanner and camera operation is assumed.

Donald Williams is a consultant, formerly with Kodak Research Laboratories. His work focuses on quantitative performance metrics for digital capture imaging devices, and imaging fidelity issues for the cultural heritage community. He has taught short courses for many years, and contributes to several imaging standards activities.

Peter Burns is with Carestream Health, Inc. working in image evaluation, modeling, and image processing for medical imaging systems. Previously he worked for Eastman Kodak Company and Xerox Corporation. He has taught imaging courses for many years, as an adjunct faculty member at RIT, at Kodak, and at previous Archiving conferences.

T2B: Using JHOVE for Format Identification, Characterization, and Validation 4:00 - 6:00 (2 hours) Instructor: Sheila M. Morrissey, Portico

All file formats are, to a lesser or greater degree, at risk of obsolescence. Digital preservation necessitates the capture of baseline information about the file formats in which digital objects are encoded, in order to inform preservation planning and preservation action. We need to know what format an object purports to be (identification), whether it conforms to the specification of that format (validation), and what format-specific features are contained in the object (characterization). This course describes how the JHOVE tool performs these operations. It provides comprehensive instruction on the use, deployment, and customization of the JHOVE tool in local repository and preservation systems and workflows. The experience of using JHOVE at Portico, a permanent archive of scholarly literature published in electronic form, and other large-scale digital preservation applications, is described. The course also previews the technical and functional enhancements planned for the next generation of JHOVE.

Benefits

This course will enable the attendee to:

- Gain an understanding of the importance of format characterization in digital repository and preservation workflows
- Review the JHOVE plug-in architecture, configuration options, and module API
- · Learn how to acquire, install, apply, and

Short Course Fees

if you register:	by	after
, .	April 8	April 8
6-hour Member	\$330	\$365
6-hour Non-member	\$360	\$390
4-hour Member	\$260	\$295
4-hour Non-member	\$290	\$325
2-hour Member	\$155	\$190
2-hour Non-member	\$185	\$220

Students may register for any short course for \$50 until April 8; \$85 after that date.

We are in search of a monitor for each class. Monitors assist instructors, collect admission tickets, distribute class notes, and collect course evaluations in exchange for class attendance. If you'd like to be a monitor, please contact Diana Gonzalez (archiving2009@imaging.org).

IS&T reserves the right to cancel classes in the event of insufficient advance registration. Please indicate your interest early.

customize JHOVE in local systems and workflows

- Learn the principles of developing modules for additional formats not currently supported by JHOVE
- Preview the technical and functional enhancements planned for the next generation of JHOVE

Intended Audience

Digital repository and preservation practitioners.

Sheila Morrissey is senior research developer at Portico, where her work includes the development of customizations to and extensions of JHOVE for the Portico archival workflow. She is currently engaged with partners at the California Digital Library and Stanford University in developing the next-generation JHOVE2 tool. Her past work includes the design and development of print and electronic publishing systems. She has served as a representative to XML vocabulary standards groups. She received her BA from Yale University and her MA from Cornell University, both in English literature, and her MS in computer science from Rutgers University.

TRACK 3: COLLECTION MANAGEMENT ARCHITECTURE AND WORKFLOW

T3A: Color Image Workflows and Architecture for Archiving Applications 8:00 am - 3:45 pm (6 hours)

Instructor: Sabine Süsstrunk, École Polytechnique Fédérale de Lausanne (EPFL)

Images optimized for archiving, images optimized for viewing, and images optimized for printing usually do not contain the same digital values, nor should they. Depending on the intended usage of a digital image, its image state (color encoding, resolution, compression, processing, and rendering) needs to be adjusted. This course covers the workflow from image capture to visualization to archiving and discusses the appropriate image parameters for each step.

Benefits

This course will enable the attendee to:

- Understanding image formation, colorimetry, and color management
- Apply ICC color management to your imaging workflow
- Recognize different image states and their relevancy in image archiving environments
- Identify the correct image capture parameters (scanners and digital cameras) and color management workflow for your image archiving and visualization needs
- Define color image encodings, resolution, file formats, and compression requirements for your image files

Intended Audience

Imaging managers and technicians in an image archive or library who are involved in the digitization, processing, and maintenance of digital images, and engineers who develop hardware and software applications for the archival community. Basic knowledge of digital imaging is assumed. Sabine Süsstrunk is Professor for Images and Visual representation at the École Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Prior to that she was the principle imaging researcher for Corbis Corp. in Seattle, WA. She is a member of ISO TC42 WG18 and JWG20/22/23, the ISO committees defining digital photography and color imaging standards. Süsstrunk is the director of CIE Division 8 (Imaging Technologies). She has lectured and published extensively in the area of color imaging, and is a consultant to museums, archives, and companies.

T3B: Collection Integrity Monitoring Using the Audit Control Environment (ACE)

4:00 – 6:00 pm (2 hours) Instructor: Mike Smorul, University of Maryland

Asserting the integrity of digital holdings is a fundamental task of any digital archive. ACE software is an open, externally auditable system that monitors the integrity of digital collections. The course consists of two parts, first introduces and demonstrates how cryptographic digests work, and how they are used to monitor the integrity of objects. The second part provides an in depth tutorial on how to use the Audit Manager (AM) portion of the ACE software. AM can be used to monitor digital holdings. Students are shown how to monitor collections and are made aware of issues that arise when preserving digital objects.

Benefits

This course will enable the attendee to:

- Understand some issues that arise when attempting to assert the integrity of digital objects
- Learn how cryptographic digests may be used to assert collection integrity
- Have understanding of how to use ACE AM to monitor collections
- Understand why additional integrity information, on top of cryptographic digests, is necessary
- Learn how digests may be used to extract summary data regarding a collection

• Learn what characteristics need to be evaluated when deciding to use cryptographic digests to monitor data

Intended Audience

Archivists responsible for preserving digital records. No technical background is necessary; however familiarity with managing files on hard drives and web browser proficiency is expected.

Mike Smorul received his BS in computer science from the University of Maryland. He has a background in network and high performance computing system administration. More recently, he has worked as lead programmer for the UMIACS ADAPT project. Current projects include developing a modular set of tools to aid in ingestion and long term digital stewardship of digital objects.

TRACK 4: DIGITAL ACQUISITION

T4A : Applying Digital Forensics Techniques to Materials Acquired on Physical Media

8:00 – 12:15 (4 hours) Instructor: Christopher (Cal) Lee, University of North Carolina, Chapel Hill

Information professionals are often responsible for acquiring or helping others access materials that reside on removable storage media, e.g. receiving disks as part of a collection. This information is often not packaged nor described as one would hope; the information professional must extract whatever useful information resides on the medium, while avoiding the accidental alteration of data or metadata. The field of digital forensics offers many methods for data recovery and documentation. This course explores the layers of hardware and software that allow bitstreams on digital media to be read as files. Participants learn the roles and relationships of these layers and learn about tools and techniques for ensuring the completeness and evidential value of data.

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Benefits

This course will enable the attendee to:

- Understand the roles and relationships between the main layers of technology required to read a string of bits off of a physical storage medium and treat it as a file
- Learn about various forms of data that may be "hidden" on the physical storage medium
- Recognize the "order of volatility" of data in computer systems and strategies for accidental manipulation of volatile data
- Delve into the data that a file system uses to manage files, focusing on FAT32 as a common example
- Gain an awareness of digital forensics tools and techniques that can be useful to those who are responsible for digital collections, and learn where to find more information about those tools and techniques
- Learn well-established practices for documenting the forensic process, in order to ensure the evidential value of data

Intended Audience

Information professionals responsible for acquiring or transferring collections of

digital materials, particularly those received on removable media.

Christopher (Cal) Lee is assistant professor at the School of Information and Library Science at the University of North Carolina, Chapel Hill. He teaches classes in archival administration, records management, digital curation, resource selection and evaluation, understanding information technology for managing digital collections, and the construction of digital repository rules. His research focuses on long-term curation of digital collections. Lee is editing a book about the management of personal digital collections.

T4B : Designing Submission Agreements for Digital Repositories

1:45 – 3:45 (2 hours) Instructors: Carolyn Hank and Helen Tibbo, University of North Carolina, Chapel Hill

A fundamental component of digital repository development and deployment is the establishment of deposit agreements. In reference to the Open Archival Information System (OAIS) Reference Model, these agreements make clear the expectations, roles, and responsibilities for a digital repository's producers, managers, and consumers. This course draws on examples from a variety of digital repository typesinstitutional repositories, digital archives, social science data repositories, subjectbased digital repositories, and pre-print repositories-to provide an overview of deposit agreement forms. This overview is framed by the technical, legal, language, and workflow issues to be considered when developing and "operationalizing" submission agreement forms. Through exposure to a sample of actual submission agreement forms, this course identifies and distinguishes among mandatory, recommended, and optional submission requirements.

Benefits

This course will enable the attendee to:

• Understand the different roles of

producers, managers, and consumers of a digital repository

- Identify various approaches for communicating requirements for deposit
- Know the mandatory elements of
 - submission agreement forms, regardless of repository type
- Explore recommended and optional submission agreement form elements
- Learn specific language, legal, and technical considerations
- Identify appropriate workflows for incorporating submission agreements and ultimately, draft a submission agreement form for use at their respective institutions.

Intended Audience

Digital repository managers, developers, and curators; digital librarians; archivists and electronic records managers; and professional staff and administrators charged with preserving an institution's digital assets. An introductory to intermediate level of understanding in the areas of digital curation and digital preservation is recommended.

Carolyn Hank is a Triangle Research Libraries Network (TRLN) doctoral Fellow at the School of Information and Library Science at the University of North Carolina at Chapel Hill (UNC-CH). She served as project manager for the university-wide Digital Curation/Institutional Repository Committee (DC/IRC), and is currently project manager for the Digital Curation Curriculum (DigCCurr) project. She teaches in the areas of digital preservation and access, digital curation, and human information interactions.

Helen R. Tibbo, professor at the School of Information and Library Science at UNC-CH, teaches in the areas of archives and records management, digital curation and preservation, appraisal, and reference. She is PI for the DigCCurr I project, developing an International Digital Curation Curriculum for master's students, and PI for DigCCurr II, extending the curriculum to the doctoral level and providing week-long summer institutes for practitioners. She served as chair of the DC/IRC.

T4C: Mining Contextual Information for Digital Preservation with ContextMiner

4:00 – 6:00 (2 hours) Instructors: Chirag Shah and Helen Tibbo, University of North Carolina, Chapel Hill

This short course introduces the student to the issues of capturing contextual information for digital objects and collections, and using ContextMiner to gather it. Contextual information helps to make sense of digital objects and better preserves them. ContextMiner is a web-based service that assists in collecting data, metadata, and contextual information from the web through automated crawls. The course teaches the student how to use ContextMiner to automatically collect such data and develop collections using sources such as YouTube, blogs, and Twitter. The student is walked through all the steps of running a campaign using ContextMiner, including filling in the campaign description (similar to a finding aid), configuring the crawls, and analyzing and using the collected information.

Benefits

This course will enable the attendee to:

- Understand the importance of contextual information for archiving digital materials
- Become familiar with the ContextMiner framework for collecting such contextual information
- Create actual campaigns, including a set of queries that ContextMiner can use to crawl various sources and collect data
- Use sample data from actual Context-Miner processes for hands on experience
- Gain an understanding of the available information from various sources and how ContextMiner collects and presents them
- Enhance appreciation for mining contextual information for better analysis, storage, and study of digital objects and the communities around them

Show Your Products to Archiving Attendees at the Exhibition on Wednesday The exhibition will run all day Wednesday in the same space as the coffee break and Interactive Papers Session to ensure visibility and interaction. Contact Donna Smith dsmith@imaging.org

+1-703-642-9090 x107

Intended Audience

Archivists and curators interested in collection development; social and political scientists and journalists working in the areas of new media and their impact on the society; and information professionals interested in mining rich contextual information about a digital object from different sources. Some familiarity with online services such as YouTube, blogs, and Twitter is expected. *Please note: Each participant is expected to bring his/her laptop with opensource (and free) tools, such as Apache, MySQL, and PHP installed, to get the hands-on experience during the course.*

Chirag Shah is a doctoral student in the School or Information & Library Science at UNC Chapel Hill. He has been working on various issues relating to digital preservation and mining contextual information. He teaches a graduate course on designing and building information retrieval systems at UNC Chapel Hill. He is the creator and the principle developer of ContextMiner.

Helen Tibbo: see bio under T4B.

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Archiving 2009 Hotel Information

Hilton Crystal City at Reagan National Airport 2399 Jefferson Davis Hwy Arlington, VA 22202 703/418-6800 www.hilton.com

IS&T has arranged for a block of rooms at the discounted rate of \$\$169 + 10.25% state and local taxes (single/double) at the Hilton Crystal City at Reagan National Airport.

The charge is \$10/night for each additional person in the room up to four adults. Two children under the age of 18 may accompany parents at no additional charge.

This rate is available over the conference dates of May 3 - May 8, and will be extended for 3 days prior to and 3 days after the dates of the meeting on a space available basis.

The hotel is located 1 mile from Reagan National Airport (see transportation note below) and is a non-smoking facility.

Reservations are assigned on a priority basis to our group provided they are received by April 2, 2009. To guarantee your room, a deposit equal to one night's housing must accompany your reservation request; it may be guaranteed with a major credit card.

To receive the discounted room rate, note that you are with the Archiving 2009 Conference when making your reservation. To register online go to

http://www.hilton.com/en/hi/groups/personalized/DCANAHF-SIS-20090503/index.jhtml. To register via phone call 1-800-445-8667.

All requests for reservations must be received by April 2, 2009

Notice of cancellation must be given to the hotel 24 hours prior to arrival date to receive a full refund of deposit. Be sure to obtain a cancellation number. Check in is 3:00 pm; early arrivals will be accommodated as soon as possible. Check out is noon.

Please advise the hotel of any change in date or plan by calling 800/695-7551.

Transportation Notes: Complimentary hotel airport shuttle service is provided to and from Reagan National Airport (DCA), the Crystal City Metro station, and nearby shopping, restaurants, and businesses. The shuttle picks up from DCA approximately every 15 minutes from the lower level outside the baggage claim area. Courtesy phones are provided near baggage claim to call the hotel if the shuttle does not arrive in a timely manner. Taxi service is also available and should cost less than \$10 one way.

Archiving 2009

Archiving 2009 Conference Registration

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Conference registration includes admission to all technical sessions, coffee breaks, and the Welcome and Conference Receptions. Separate registration fees are required for short courses. Pre-registrations accepted until April 28, 2009; after that date, registration must be done at the conference venue. Register online at www.imaging.org/conferences/archiving2009/ or fax form to +1-703-642-9094.

Conference Registration (CHECK ONE)	until April 6	after April 6	TOTAL
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Speaker/Session Chair Member	\$455	\$555	\$
Speaker/Session Chair Non-member	\$555	\$655	\$
Student (ID required) Member	\$125	\$155	\$
Student Non-member	\$150	\$180	\$
One-day (select below)	\$335	\$385	\$
🗖 Tuesday 🗖 Wednesday 📮 Thursday			

Short Course Registration (be sure to multiply number of classes by per course fee and place on total line)

*Students may register for any short course	e at \$50 until	April 6 and \$85 afte	er that date
6-hour Member (per class)	\$330	\$365	\$
6-hour Non-member (per class)	\$360	\$395	\$
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2-hour Non-member (per class)	\$185	\$220	\$
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Archiving 2009



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