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

**Thursday, May 7**
- Keynote: Challenges and Opportunities for Digital Stewardship in the Era of Hope and Crisis
- Technical Session: Imaging and Preservation
- Interactive Session II
- Optional Behind-the-Scenes Tours (see p. 3)

Short Courses At-a-Glance

**Track 1: Building Digital Collections**
- 8:00 am – 12:15 pm
  - T1A: Web Harvesting with the Web Curator Tool
  - T1B: The $5,000 Digitization Solution

**Track 2: Performance and Validation**
- 8:00 am – 3:45 pm (with lunch break)
  - T2A: Scanner & Camera Imaging Performance Workshop Course
  - T2B: Using JHOVE for Format Identification, Characterization, and Validation
- 4:00 – 6:00 pm
  - T2B: Using JHOVE for Format Identification, Characterization, and Validation

**Track 3: Collection Management Architecture & Workflows**
- 8:00 am – 3:45 pm (with lunch break)
  - T3A: Color Image Workflows and Architecture for Archiving Applications
  - T3B: Collection Integrity Monitoring Using ACE
- 4:00 – 6:00 pm
  - T3B: Collection Integrity Monitoring Using ACE

**Track 4: Digital Acquisition**
- 8:00 am – 12:15 pm
  - T4A: Applying Digital Forensics Techniques to Materials Acquired on Physical Media
  - T4B: Designing Submission Agreements for Digital Repositories
  - T4C: Mining Contextual Information for Digital Preservation with ContextMiner

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 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.

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

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 workflow. 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.
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.

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.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, including 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-

Tour Options Continued

Special Media Preservation Division Reformatting Labs of the National Archives
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.

Tour Options Continued

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, Ardy Kosziwal, David Minor, Don Sutton, and Bradley Westbrook, University of California San Diego Libraries and San Diego Supercomputer Center (USA)

Interactive Paper Previews followed by lunch

Tuesday May 5, 2009

2:00 - 4:30 PM
DIGITAL COLLECTION STEWARDSHIP
Session Chairs: Maria Guercio, University of Urbino (Italy), and Katherine Skinner, Emory University (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, Ricardo Ferrante and Lynda Schmitz Fuhng, 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 Darzour, 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 Hsih, 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 Scheinfield, 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, Sanghai Song and Joseph Jafa, University of Maryland (USA)
Creating a Business Plan for the Archival Preservation of Geospatial Data, Butch Lazorchak, Zsolt Nagy, Dennis Goreham, Steven Morris, Alec Bethune,
and Matt Peters; Library of Congress, North Carolina Center for Geographic Information and Analysis, Utah Automated Geographic Reference Center, and North 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, Alessandria 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. EI-Din Salam, Egyptian Armed Forces; M. Sharaaww, Helwan University; and Ismail A. Taha, Ain Shams University (Egypt)
Defining Digital Archaeology, Sergio Gregorio, University of Basel and Swiss Federal Chancellery (Switzerland)
Interoperability Between XML-based Meta-data 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 Ringscheid, Braunschweig Technical University (Germany)

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Archiving 2009

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

One Man’s Obsolescence is Another Man’s Innovation: A Risk Analysis Methodology for Digital Collections, Kevin De Vorsay 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, Dharmi Misra, Siyuan Chen, and George R. Thomas, National Library of Medicine (USA)

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

Defining Digital Archaeology, Sergio Gregorio, University of Basel and Swiss Federal Chancellery (Switzerland)

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 Mirsal Estadra, George Eastman House International Museum of Photography and Film (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, JISC 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, Mikkelin University of Applied Sciences (Finland)

Legal Agreements Governing Archiving Partnerships: The NGDA Approach, Dominik Giel, Andreas Hofmann, and Wenzel Salzmann, Fraunhofer Institute for Physical Measurement Techniques - IPM (Germany)

Ingestion and Indigestion: Negotiating Between States in the Digital Cloud, Jerry Handfield, Washington State Archives (USA)

Interoperability Between XML-based Meta-data Systems and the Web Search Engines, S. M. Taheri, Iranian Library and Information Association (Iran)

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

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. EI-Din Salam, Egyptian Armed Forces; M. Sharaaww, Helwan University; and Ismail A. Taha, Ain Shams University (Egypt)

Defining Digital Archaeology, Sergio Gregorio, University of Basel and Swiss Federal Chancellery (Switzerland)

Interoperability Between XML-based Meta-data 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 Ringscheid, Braunschweig Technical University (Germany)
This course will enable the attendee to:

- Define a low-cost digitization project
- Identify photographic objects appropriately and their benefits
- Appreciate how the Harvest Queue works and how to manage it when resources are limited

**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

**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.

**Short Course Program: Monday, May 4, 2009**

**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 Oganeski, 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 Reeks, 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)

**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:

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

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

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.

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.

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.
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:
- Understand 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 Süssstrunk is Professor for Images and Visual representation at the Ecole Polytechnique Federale 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 JWG/20/22/3, the ISO committees defining digital photography and color imaging standards. Süssstrunk 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

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.
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.

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 ContextMiner 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

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 open-source (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 of Information & Library Science at UNC Chapel Hill. He has been working on various issues relating to digital preservation and... building information retrieval systems at UNC Chapel Hill. He is the creator and the principle developer of ContextMiner.

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 DgCCurr I project, developing an International Digital Curation Curriculum for master's students, and PI for DgCCurr II, extending the curriculum to the doctoral level and providing week-long summer institutes for practitioners. She served as chair of the DC/IRC.

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 types—institutional repositories, digital archives, social science data repositories, subject-based 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 (DgCCurr) 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 DgCCurr I project, developing an International Digital Curation Curriculum for master's students, and PI for DgCCurr II, extending the curriculum to the doctoral level and providing week-long summer institutes for practitioners. She served as chair of the DC/IRC.
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/hl/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

Conference Registration

Name ____________________________
Title/Position ____________________________
Company ____________________________
Mailing Address ____________________________

Telephone __________________ Fax __________________ Email __________________

Not a member? Join today and calculate all fees based on member rates.
Please charge the card listed below with the following membership:
$95 US address $105 overseas address $25 Student Total $ __________
Complimentary online journal: J Imaging Sci&Tech J Electronic Imaging

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

| IS&T Member | $555 | $655 | $ __________ |
| Non-member | $655 | $755 | $ __________ |
| Speaker/Session Chair Member | $455 | $555 | $ __________ |
| Speaker/Session Chair Non-member | $555 | $655 | $ __________ |
| Student (I.D. required) Member | $125 | $155 | $ __________ |
| Student Non-member | $150 | $180 | $ __________ |
| One-day (select below) | $335 | $385 | $ __________ |

Put “–$80” on line to right.)

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 at $50 until April 6 and $85 after that date |
| 6-hour Member (per class) | $330 | $365 | $ __________ |
| 6-hour Non-member (per class) | $360 | $395 | $ __________ |

Check the one that applies: T2A T2B T3A T3B T4A T4B T4C

I’ve taken 8 hours of classes. *** (Put “–$80 on line to right.) Does not apply to students rates. $ __________

Grand Total $ __________

Payment Method: MC VISA American Express Discover
Card#: ____________________________ Exp. Date: ____________________________

Name as it appears on card: ____________________________
Authorization Signature: ____________________________

Return this form with signed credit card authorization or check payable to IS&T to
IS&T, 7003 Kilworth Lane, Springfield, VA 22151 or fax to +1-703-642-9094

Please note: To cover bank charges and processing fees, there is a cancellation fee of $75 until May 3, 2009. After that date, the cancellation fee is 50% of the total plus $75. No refunds will be given after June 4, 2009. All requests for refund must be made in writing.