



THE ACADEMY OF MOTION PICTURE ARTS AND SCIENCES' SCIENCE AND TECHNOLOGY COUNCIL

DIGITAL MOTION PICTURE METADATA SYMPOSIUM

THURSDAY, JUNE 11, 2009 AT THE LINWOOD DUNN THEATER



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THURSDAY, JUNE 11, 2009

PROGRAM

7:30 to 8:30am – Registration and Continental Breakfast

8:30 to 8:35am – Symposium Overview, Seth Earley, Program Moderator and President, Earley and Associates

8:35 to 8:45am – Welcome – Ray Feeney, Co-chair, Science and Technology Council, Academy of Motion Picture Arts and Sciences

8:45 to 9:00am – Setting the Stage – Andy Maltz, Director, Science and Technology Council, Academy of Motion Picture Arts and Sciences

9:00 to 9:30am – Transforming Motion Picture Digital Preservation through Effective Use of Metadata – Nancy Silver, Digital Archival Program Manager, Academy of Motion Picture Arts and Sciences

9:30 to 10:00am – Clipboard People: The Role of Metadata in Production – Jim Houston, Chair, Image Interchange Framework Subcommittee, Academy of Motion Picture Arts and Sciences

10:00 to 10:30am – Morning Break

10:30 to 11:00am – Some Thoughts on Metadata in the Pixar Production Pipeline – Michael B. Johnson Ph.D., MPG Lead, Pixar Animation Studios

11:00 to 11:30am – “Benjamin Button”: A Case Study in Keeping Up with Film Students and Independents – Peter Mavromates, Director of Post Production, Marvel Studios, and Post Production Supervisor for THE CURIOUS CASE OF BENJAMIN BUTTON

11:30am to 1:00pm – Lunch Break

1:00 to 1:30pm – Library of Congress Metadata Standards – Rebecca Guenther, Senior Networking and Standards Specialist, Library of Congress

1:30 to 2:00pm – SMPTE Metadata Standardization – Karen Broome, SMPTE Chair and Senior Staff, Technology Standards Office at Sony Electronics

2:00 to 2:30pm – Identifier Systems in Network Architecture – Larry Lannom, Director of Information Management Technology and Vice President, Corporation for National Research Initiatives® (CNRI)

2:30 to 3:00pm – Afternoon Break – Refreshments and Dessert

3:00 to 3:30pm – Warner Bros. Metadata Service Bureau: Master Data Management and Metadata Distribution – Jeff Stevens Vice President, Warner Bros. Digital Archives

3:30 to 4:00pm – Managing Multi-Source Metadata Across Disparate Media Formats – Ryan Cox, Director of Product Management, Gracenote

4:00 to 4:30pm – Before and Beyond Metadata: The 400-Pound Gorilla Issues in Archiving Motion Pictures – Larry Blake, Swelltone Labs

4:30 to 5:00pm – Symposium Recap: Understanding the Role and Value of Metadata in Your Organization – Seth Earley, Program Moderator and President, Earley and Associates

**Please note that each presentation will be approximately twenty minutes in length followed by ten minutes allotted for questions and answers.*

RAY FEENEY

Welcome

Ray Feeny is co-chairman of the Academy of Motion Picture Arts and Sciences' Science and Technology Council. He also serves on the Academy's Visual Effects Branch executive committee and the Scientific and Technical Awards executive committee. Ray founded RFX in 1978 to provide leading-edge scientific and engineering solutions for the film industry. Through RFX, he has helped to pioneer and implement numerous technologies, many of which have become industry standards and are currently in use to produce visual effects for motion pictures, television shows and commercials. Ray has received four Academy Scientific and Engineering Awards, the John A. Bonner Medal of Commendation and the Gordon E. Sawyer Award, an Oscar® statuette. He is a founding member and director of the Visual Effects Society as well as a Society of Motion Picture and Television Engineers (SMPTE) fellow.

ANDY MALTZ

Setting the Stage

Andy Maltz has been active in entertainment technology management, business development and system design for over 25 years. As the first director of the Academy's Science and Technology Council, Andy was responsible for developing and implementing the Council's operational plan. Andy is the former CEO of Avica Technology Corporation, where he led the first worldwide commercial deployment of digital cinema servers and mastering systems, drove the development of key technologies for digital cinema, and was heavily involved in the digital releases of many major motion pictures in the US, Europe and Asia. Andy previously served as a consultant to companies such as Sharp Electronics and Microsoft, where he spearheaded the development of the Advanced Authoring Format and was the executive vice president of operations for Ediflex Digital Systems, a pioneering nonlinear editing company. Andy received his BSEE from the State University of New York at Buffalo. He is an associate member of the American Society of Cinematographers, a member of the National Archives Public Advisory Committee for Electronic Records Archives and a SMPTE fellow. At SMPTE, he serves on several engineering committees and its Journal Board of Editors.

NANCY SILVER

Transforming Motion Picture Digital Preservation through Effective Use of Metadata

This presentation will focus on the purpose and importance of metadata for digital motion picture materials. It will include an overview of the different types of metadata, as well as current AMPAS metadata initiatives for digital motion picture materials.

Nancy Silver is the Digital Archival Program Manager for the Academy's Science and Technology Council. Nancy's work focuses on investigating archival strategies for digital motion pictures. She currently manages the AMPAS Digital Motion Picture Archive Framework partner project with the Library of Congress. Prior to the Academy, Nancy was a senior technical project manager and lead content strategist for Ascentium, an interactive design and technology consulting firm, where she led and implemented digital asset and content management solutions for companies such as Microsoft. Nancy also managed E! Entertainment Television's media vaults and served as a key architect of DAISY (Digital Asset Information System). She holds a Master's degree in Library and Information Science.

JIM HOUSTON

Clipboard People: The Role of Metadata in Production

Production metadata helps people who work on the same project but will never meet. It reminds people what they did in the middle of the night. It describes the project at hand – when, where, and how it came together, and who is to blame if something goes wrong. This presentation will examine issues in current digital production needs for metadata, as well as provide general rules for metadata design. It will also describe the color management capabilities of the Academy's Image Interchange Framework as a means to address future production needs.

Jim Houston is chair of the Academy's Image Interchange Framework committee, a project of the Academy's Science and Technology Council. He has been a pioneer in motion picture digital technologies for 23 years, including in the areas of visual effects, animation, restoration, archiving and post production. He has developed digital production workflows at companies such as Postworks LA, Pacific Title & Art Studio, Mainframe Entertainment, Pacific Ocean Post, Sony Pictures Imageworks and Walt Disney Feature Animation. He is the joint recipient of two Academy Scientific and Technical Awards – one for the design and development of the Rosetta process for creating digital YCM archival masters, and the other for design and development of Disney's Computer Animation Production System (CAPS). Jim Houston is a member of the Academy's Digital Imaging Technology awards subcommittee. He also contributes to SMPTE's digital cinema standards efforts, and to the ASC Technology committee, where he was a co-developer of the ASC Color Decision List, and post production producer for the ASC/DCI StEM (Standard Evaluation Material).

MICHAEL B. JOHNSON, PhD

Some Thoughts on Metadata in the Pixar Production Pipeline

At Pixar, we have metadata about many of the elements that comprise our films. Unfortunately, the levels of transparency on this metadata vary; some parts are used heavily in production and are very accurate, other parts are not. This presentation will discuss the value of metadata during production, soon after, and much later. It will also discuss strategies we've tried, and are trying, to improve the quality of our metadata. Pretty pictures will be shown.

Dr. Michael B. Johnson leads Pixar Animation Studios' Moving Pictures Group, which is responsible for the design, implementation and support of the pre-production pipeline for Pixar features and shorts. This includes story, editorial, art, production management and the review process. His team works directly with the directors, editors, producers, production designers, art directors, artists and production folks who start the process of bringing Pixar stories to the screen. Michael has been at Pixar since 1993, and has written tools for all of Pixar's feature films (and many of their short films), including storyboarding, pre-viz, layout, animation, modeling, lighting, rendering, and editorial tools. Prior to Pixar, Michael held various posts at NCSA, Thinking Machines, IBM and MIT's Media Lab. He completed his Masters of Science in Visual Studies and his PhD in Computer Graphics and Animation at the MIT Media Lab, where Pixar co-founder Dr. Edwin Catmull was on his thesis committee.

PETER MAVROMATES

“Benjamin Button” – A Case Study in Keeping Up with Film Students and Independents

This presentation will provide an overview of the tapeless digital workflow used by director David Fincher and his team on ZODIAC and THE CURIOUS CASE OF BENJAMIN BUTTON. It will cover subjects such as digital capture, data flow, security and independence in the data world, digital communication in post, and the skill sets of new filmmakers. The digital revolution has been completed in motion picture sound and in professional still photography – now it is “filmmaking’s” turn.

After completing his Master’s degree at New York University’s Graduate Film Program, at the time based in traditional film making techniques, Peter Mavromates went to work for a company specializing in high-end video commercials and graphics. That experience prepared him for the digital revolution. In the late ‘80s and early ‘90s, he worked primarily in post production on commercials, graphics, visual effects and music videos. His feature film career began on David Fincher’s THE GAME. He has worked on a dozen movies, five of which were directed by Fincher, and no two of which were made the same way.

REBECCA GUENTHER

Library of Congress Metadata Standards

This presentation will cover metadata standards maintained at the Library of Congress that are used to support discovery, management and preservation of digital material. It will include an introduction to descriptive standards maintained at LC (such as MARC and MODS), the structural/container standard METS, the preservation metadata standard PREMIS, and some technical metadata standards (such as MIX).

Rebecca Guenther is Senior Networking and Standards Specialist in the Network Development and MARC Standards Office of the Library of Congress. Her current responsibilities include work on national and international information standards, primarily in the area of metadata, including MARC, MODS, MADS and other XML metadata standards. She is chair of the PREMIS Editorial Committee and also serves as chair of the ISO 639 Joint Advisory Committee on language codes.

KAREN BROOME

SMPTE Metadata Standardization

The Society of Motion Picture and Television Engineers is a standards-developing organization serving the international film and television industry. Featuring a wide range of participants – including content creators, hardware and software manufacturers, broadcasters, metadata service providers and more – SMPTE’s technical committees standardize data formats used in production, post production, distribution and playout. This presentation will provide an overview of the SMPTE’s recent work in metadata as well as the challenges faced by the industry as content production moves into file-based workflows.

Karen Broome chairs the SMPTE 30MR.10 Metadata Definition Working Group, which is tasked with maintaining the SMPTE’s registered metadata. She also serves as secretary of the 31FS Files and Structures technical committee, and is chair of the Academy Metadata Project committee. She worked on metadata standards at Sony Pictures prior to joining Sony’s Technology Standards Office staff this year, where she will maintain her focus on metadata formats for the entertainment industry.

LARRY LANNOM

Identifier Systems in Network Architecture

Digital information, especially when available via open networks, is inherently dynamic and mobile, which presents a challenge to those who must manage that information. Persistent identifier systems are key to the evolution of information management on networks. This presentation will address the role of identifiers, including identifier resolution systems, in network architecture.

Larry Lannom is Director of Information Management Technology and Vice President at the Corporation for National Research Initiatives (CNRI), where he works with organizations in both the public and private sectors to develop experimental and pilot applications of advanced networking and information management technologies. His current work focuses on CNRI's Digital Object Architecture, which is based on the concept of the digital object, a uniform approach to representing digital information across computing and application environments, both now and into the future. He is responsible for the development and ongoing evolution of a series of infrastructure components needed to implement the architecture.

JEFF STEVENS

Warner Bros. Metadata Service Bureau – Master Data Management and Metadata Distribution

Gathering, storing and delivering metadata as part of a digital distribution workflow have created taxing challenges for content distribution groups. As the number of digital distribution and broadband partners grow, the need to effectively manage metadata and provide configurable metadata export options increases. In November of 2008, Warner Bros. launched the Metadata Service Bureau (MSB). The MSB utility provides master data management and data delivery to Warner Bros. clients such as iTunes and Amazon.

Jeff Stevens serves as Vice President of Digital Archives, Warner Bros. Technical Operations. In this role, Stevens works closely with Warner Bros.' theatrical, television and home entertainment groups to determine metadata standards and best practices. He is also responsible for content for the studio's digital asset management system, MARS, and master data management tool, Metadata Service Bureau. Stevens began working in digital asset management in 2002 as Director of the studio's Corporate Image Archive and Corporate Archive, where he served dual roles overseeing the company's digital and physical assets. He joined Warner Bros. in 1994 as Retail Operations Manager for Warner Bros. Consumer Products.

RYAN COX

Managing Multi-Source Metadata Across Disparate Media Formats

Gracenote, now a wholly owned subsidiary of the Sony Corporation of America, manages the world's largest database of music and video metadata. Because metadata is a critical component of every Gracenote product, the company has dealt with and overcome complex metadata issues over the past decade. This presentation will describe the challenges and the opportunities for innovation that Gracenote faces as it attempts to ingest, process, store, analyze and deliver quality metadata across a wide variety of media platforms and formats.

Ryan Cox is the Director of Product Management for Gracenote, heading up the company's Video and Recommendation product lines. He has helped architect the processes, systems, and business analysis modules that power Gracenote's next-generation Media Database. Prior to Gracenote, Cox co-founded and launched The Independent in San Francisco, one of the country's premiere small-capacity music venues. He has an audio engineering degree from the Ex'pression College for Digital Arts in Emeryville, California, as well as enterprise software experience courtesy of stints at Ariba and Oracle.

LARRY BLAKE

Before and Beyond Metadata: The 400-Pound Gorilla Issues in Archiving Motion Pictures

Today the motion picture industry is still finding its footing with regard to the digital archiving of motion pictures. While film remains the primary shooting and exhibition format, most of the interim steps, as well as some shooting and delivery formats, are digital, resulting in much confusion over the smoothest way to make the inevitable transition to a completely digital workflow. This presentation will cover the important but often overlooked roles of documentation and basic file-naming hygiene, as well as the need for updated studio delivery specifications

Larry Blake is a supervising sound editor and re-recording mixer, whose credits include ERIN BROCKOVICH, TRAFFIC, OCEAN'S ELEVEN and its sequels, SYRIANA, CHE, and THE GIRLFRIEND EXPERIENCE. He has also written extensively on film sound for publications such as *Recording Engineer/Producer* and *Mix*, and is a former chairman of the SMPTE Working Group A12.94. He works primarily through his post production facility, Swelltone Labs, in New Orleans.

SETH EARLEY

Moderator and Symposium Recap - Understanding the Role and Value of Metadata in Your Organization

This session will tie the themes of the symposium together to provide a holistic view of metadata in digital motion picture production, distribution and archiving. It will address specific steps needed to operationalize taxonomy and metadata and provide a list of action items to consider. Key ideas will be examined within the context of different types of organizations, so symposium attendees will depart armed with specific knowledge that they can take back to their companies.

Topics include:

- High-level recap of main points from the session
- Making the business case
- Metadata lifecycles in context
- Explaining the value of metadata to business stakeholders
- Next steps and an action plan

Seth Earley, president of Earley & Associates, has been implementing metadata and taxonomies for digital asset management and knowledge management projects for more than 14 years. He is founder of the Boston Knowledge Management Forum, co-author of *Practical Knowledge Management* (IBM Press), and a former adjunct professor at Northeastern University, where he taught graduate courses in knowledge management infrastructure and eBusiness strategy. Seth has developed search, digital asset and knowledge strategies for global organizations and has developed underlying taxonomies for a diverse roster of Fortune 1000 companies. As a speaker and workshop leader, he has delivered presentations on digital asset management, knowledge management, content management systems and strategy, taxonomy development, metadata standards and related topics at conferences throughout North America.

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