DAS (Digital Asset Symposium) Summary

Last month, a few of us on the Echo Archives team attended the two-day Digital Asset Symposium (DAS) organized by The Association of Moving Image Archivists (AMIA). The objective of DAS is to provide "a unique opportunity to compare approaches from a wide variety of institutions dealing with the same media challenges. Bringing together content creators, technologists, and caretakers to address the full life cycle of a media asset – from production to rights management – for in-depth case study analysis of what works in the real world."[i] The range of topics for the event focused on the best practices and work happening behind the scenes at institutions and companies such as Microsoft, HBO, PBS, MoMA, The Louis Armstrong House Museum, AVP (formerly Audio-Visual Preservation), Tape Ark Seagate, and Iron Mountain. I will not go into details about all the presentations; however, I will highlight a few presentations focusing on space and new technologies that resonate with my current role as a Digital Media Archivist and wrangler of videos.

Project Silica: Glass – The Future of Long-Term Archival Storage by Dr. Ant Rowstron from Microsoft Research opened day one at DAS talking about how the Microsoft Research team is "exploring how to use fused silica (glass) as a media for future archival storage."[ii] Fused silica is an attractive option for long-term storage because it is durable material that is less likely to be impacted by issues feared by most archivists, like moisture, irregular temperatures or other environmental conditions. Best of all Dr. Rowstron says it won't be impacted by bit rot or technological constraints as they are incorporating methods to account for errors with correcting code during the writing process so there is no need for repairs. The current long-term storage options for digital materials and media are either limited, costly, or might have a short life span before being faced with issues like bit rot or necessary tech upgrades. The larger the digital collection, the more problematic it is for professionals to manage assets without experiencing issues during its digital lifecycle. Institutions might use external storage systems; however, during Dr. Rowstron's presentation, he identified the lifespan of external hard drives and CDs as approximately 5 to 15 years; plus, they are not always a more affordable option. However, 5 to 15 years is not a long time when the mission of most archives and similar institutions is to store materials indefinitely.

While Cloud Storage is an option to alleviate some of these storage issues, cloud management systems are often pricey depending on the projected digital space required for an institution and data center costs. The aim of Project Silica is to allow a cost-effective storage service so archives will be able to securely store digital assets for an indefinite amount of time. I am not qualified enough to go into the details of Project Silica, so for more information and to learn the method the Microsoft Research team developed to write and store the information on the glass, which is a major breakthrough. Visit the Project Silica site for additional resources (see below).

Both my colleague (Eilidh Zuvich) and I were equally fascinated by the **Smart Stacking II: Machine Learning and Information Science at PBS** presentation panel by Sally Hubbard, Maureen Harlow, and Athina Livanos-Propst. I immediately recognized how helpful machine learning can be to anyone working with audio-visual materials.

The core concept behind this presentation focused on PBS training programs to pick out designated figures, products, and other ways to classify videos and enhance the metadata of their media. PBS "partnered with GrayMeta Curio, Amazon and the PoolParty Semantic Web Company to test out how running content through machine learning mechanisms may enrich taxonomies, and how taxonomies may improve machine learning."[iii] Taxonomies are not new to libraries and archives, but it

was impressive how PBS is using taxonomies with machine learning to build on existing knowledge so taxonomies and machine learning can work in harmony with one another as a means of amplifying existing metadata. When integrating new technology, there are considerations and hurdles to overcome such as testing, learning, and implementation, but the benefits are worth it over time.

During the presentation, the PBS panel speakers discussed the time it took to train the machine to pick out different iterations of figures such as Sesame Street characters as certain characters changed dramatically over time or look different depending on media representations and how accurate the results were with enough training. The speakers also discussed using these tools to make connections to various media across their collection that have been overlooked and discover items they didn't know they had.

The PBS team spoke about searching for educational items based on age and curriculum needs. One of the presented scenarios is searching for media content tagged using the term "sharing." Machine learning adds nuances to the term, linking it to the curriculum needed for a certain age group that focuses on "sharing" and helps identify visual representations that illustrate "sharing" without speaking the term. Archivists and other media professionals do not always have the time to examine content closely, and those examples of "sharing" might not have been as apparent. As a Digital Media Archivist, it is part of my job to watch videos for review and to catalog the content in them for future reference and information. Depending on the video length, I am not able to watch and catalog every detail of a video. Training machines to assist with identification of subject matter and other key details could cut down cataloging time and aid with search and retrieval.

Summary

There are many tools that can assist professionals working with media, and the two presentations I highlighted illustrate a few options institutions have to utilize with the potential for more currently being developed like Project Silica. With the current climate and how rapidly technology is accelerating, there is a greater urgency to process media quickly and accurately as well as creating metadata, preserving content, ensuring content is accessible and readily available. Content creation and digital media are growing exponentially and are only expected to grow as more institutions are saving analog media in digital formats and are receiving high volumes of born-digital content. Overall, the presentations at DAS, especially those incorporating institutional case studies, did a great job showing how diverse institutions are all facing similar challenges and are working to develop the best practices for media asset management by using new tech tools and experimenting with new materials to improve the work media professionals and archivists do.

Amanda Morse is currently working as a Digital Media Archivist at Echo Services. She received both a B.A. and M.A in Art History before moving on to pursue opportunities in Libraries and Archives. Amanda received her M.S. in Information and Library Science, concentrating on Archives and Special Libraries in Boston before moving to Washington.

Resources and References
Digital Asset Symposium Program-http://www.digitalassetsymposium.com/about/
Project Silica- https://www.microsoft.com/en-us/research/project/project-silica/
GrayMeta Curio- https://www.graymeta.com/curio/
PoolParty Semantic Web Company- https://www.poolparty.biz/
PBS- https://www.pbs.org/

---

[i] DAS. *About ,* 2020, http://www.digitalassetsymposium.com/about/

[ii] Rowstron, Ant. Project Silica, DAS 2020: The Program, 2020. http://www.digitalassetsymposium.com/2020/08/10/1447/

[iii] Harlow, Maureen; Hubbard, Sally; and Livanos-Propst, Athina. *Smart Stacking II: Machine Learning and Information Science at PBS*, DAS 2020: The Program, 2020. http://www.digitalassetsymposium.com/2020/08/10/1447/