2015

The Tangible Media Program at the Library of Congress

Moryma Aydelott
Library of Congress, mayd@loc.gov

care staff to detect (*before damage*) whether media can safely be played for transfer and access to content.

The library undertakes additional research into a range of AV formats to ensure long-term preservation and access to content. Research projects include cleaning solutions for lacquer discs and characterizing the nature of the exudate that forms on the surface to ensure cleaning formulations do not remove disc substrate, determining the composition of wax cylinders and which formats are more prone to degradation, composition and quality assurance testing on film cans, assessing sound fidelity of magnetic tapes before and after baking, and forensic assessment of CD/DVD and hard drive content recovery. Project summaries are updated as new research is completed and can be found at *http://www.loc.gov/preservation/scientists/projects/index.html*. One of the challenges with AV collections is institutions truly understanding the current state and condition of these collections, including accurate numbers of various formats. Knowledge of the condition is an aspect that is complicated by unknown histories of storage environments, use and wear of items in these collections. The **Heritage Health Index** is a National Collections Care Survey first undertaken in 2004 to assess the condition of American heritage institutions and repeated in 2014. While this was more focused on museums, there was a section on AV formats, and these modern materials still remain high-risk items as man-made compositions degrade over time. The 2012 **Library of Congress** National Recording Preservation Plan discusses the need for a national research agenda, continued research into preservation aspects for AV and training and technology requirements. As part of this plan, the library continues to address and research issues with AV formats as they come to light and endeavor to make this information and research available to other institutions to assist in preservation of their collection. In addition, the Preservation Reformatting Division (PRD) is responsible for the review of endangered materials that need to be copied to more stable formats using both analog and digital approaches to meet this objective. PRD provides access to at-risk library materials through converting items to new formats including microfilm, facsimiles or digital reproductions.

Conclusions

Audio-visual materials represent a very special component of our cultural heritage, these "new" storage formats being cutting-edge at the time and allowing us greater advances in accessing and storing large volumes of information. In addition to heritage institutions, many archives and businesses use or retrieve information from some formats, so understanding how best to preserve the content assures prevention of loss of content in many areas of social, historic and business

functions. While there has been a move towards digital storage, the storage media this digital information is on still remains the risk component, and manufacturers will continue to develop new formats as technology advances. Continuing to preserve our modern and historic AV formats and storage will engage researchers for many years to come. Creatively utilizing these new technologies to capture sound and video from historic formats that are machine-dependent will assure retrieval of hidden collections and preservation of our cultural heritage.

References

http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation

Byers, Fred. Care and Handling of CDs and DVDs — A Guide for Librarians and Archivists; NIST Special Publication 500-252; 2003.

Heritage Health Index (2004-2014) *http://www.heritagepreservation.org/HHI/*.

Library of Congress National Recording Preservation Plan (2012) *http://www.loc.gov/programs/static/national-recording-preservation-plan/publications-and-reports/documents/NRPPLANCLIRpdfpub156.pdf*.

The Tangible Media Program at the Library of Congress

by **Moryma Aydelott** (Special Assistant to the Associate Librarian for Library Services, Library of Congress) <mayd@loc.gov>

The **Library of Congress** has a wide variety of digital items in its collections. Tangible Media is the broad term we use for non-networked digital collection items that a user can hold. It includes floppy discs and thumb drives, CDs, DVDs, hard drives, and digital tape. There are over 300TB of known digital data across the **Library of Congress'** Library Services divisions on various types of tangible media. In 2011, Library Services began the Tangible Media Program to look at obsolete tangible media formats in **Library of Congress** collections and begin to explore what could be done to develop workflows that could be used on a variety of materials in the multiple curatorial divisions and provide a backup copy of the digital data stored on long-term storage.

Seventeen curatorial divisions were surveyed in 2013 for information about the tangible media in their collections. There are wide variations in the numbers of tangible media items by division — close to 85% of the reported tangible media are concentrated in 5 of the 17 divisions, with 60% of the reported items in just one of those 5. This confirmed that, while some of the divisions had enough materials to necessitate long or continuous digital preservation programs, the majority of the divisions did not.

A program specialist worked with each division to consult and develop the program. The specialist designed specific, customized workflows for each division including documentation and equipment maintenance and obtained any needed technical resources. By the end of the program, the specialist had assisted the divisions with preservation of over 2800 items totaling over 7.5 terabytes.