



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Overview

Case Study 09(4): Digital Moving Images – WGBH Boston

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The Creator Context / Activity

Creator: WGBH (public television station)

Creator type: Artistic focus / Public sphere (agency)

Juridical context: Not specified, beyond the existence of in-house contracts and contracts with external parties.

Activity: A public broadcasting company that delivers radio, TV and multimedia programming. WGBH was established in 1951 as a radio station. In 1955, it began to offer television channels. Today, WGBH offers a variety of television and radio channels, a Web site and a wide range of multimedia productions. Specific activities include:

- Producing and broadcasting television, radio and Web productions
- Producing teaching tools for schools and home schooling
- Producing IMAX films
- Producing services for people with hearing or vision impairments

The activity being studied in the context of this case study is the production of documentary television programs.

The creator is not doing traditional e-government activities. Its activities are more related to the artistic focus, since it is operating in the artistic field. Although the actor is governmental, the activity is artistic.

Nature of Partnership

There appears to be a sort of partnership between the production environment and the WGBH Archives. Available documentation states on occasion that the digital entities are transferred to the Archives after production has wrapped and the program has aired. In response to the question of how the creator maintains the digital entities through technological change, the response is “The Archives is responsible for this,” (FR 9), further indicating the division between the production and archive environments.

Bureaucratic/Organizational Structure

WGBH has a large, bureaucratic administration similar to the governmental level to which it is related. Its headquarters are in Boston, with branch offices in New York and Los Angeles. It is locally owned and operated, with a president, board of directors (with chairman) and over 1,000 staff. The Archives is a separate part of the creator's corporate structure than the production environment.

WGBH is funded by contracts and grants (community service grants, grants from the Corporation for Public Broadcasting), contributions from individuals (listeners), royalties and the sale of services.

Digital Entities Studied

1. Original footage: videotape or film shot by and for a specific production inside or outside the studio. The footage may be in a variety of formats, including: MiniDV, BetaSP, Digital Beta, DVCPro, DVCam, HDCam, VHS, 16mm and Super16mm film. Sound is not included in the case study, because it is usually recorded separately, although some original footage does include sound.
2. Original footage logs: an extensive listing of every shot of the original footage, describing the subject of discussion, who is in the footage, the location, environment, context and record time making up the tape. The logs are entered as data in a FileMaker Pro 7 database.

Documentary Practices Observed

WGBH Boston operates in a mixed digital and analog environment, but has developed and is converting to a digital asset management system (DAM).

Record Creation and Maintenance

For **description** and **organization**, there are in-house standards for organizing physical tapes and digital assets. Administrative and descriptive information is structured hierarchically by: series name, season number, program name and program number. Both the original footage and the original footage logs follow naming conventions that allow them to be linked together and to the final program production. The fully-digital nature of the DAM recordkeeping system will allow for the implementation of automatic standard language applications and thesaurus capability.

There are also limited **guidelines** for document creation, in the sense that "the Archives provides training and workbooks on how to complete the original footage logs." (FR 2) A **unique identifier** links the catalog record in the footage log with the original footage.

Presently, there is no automatic **capture** of digital entities. However, when the DAM system is implemented, the database itself will be ingested into the system as a digital object, with a text representation viewable in the DAM.

The **aggregation** levels will change with the passage from the current system to the DAM system.¹ Currently, footage is maintained at the tape level. Logs can be recalled for a whole tape or by individual shot. In the DAM system, aggregation will be at the tape level, clip level and

¹ It seems that in question 4e (FR 4); the respondent equates aggregation with access.

shot level. Additional virtual sub-clips can be created and linked to the moving image essence, including single frame virtual clips.

It appears from the available documentation that the original footage logs are in effect the **metadata** for the original footage. Currently, “every asset received by the Archives is compared to the data entry in the log....This is done before the asset is transferred to the Archives’ secure storage area and before it is available for circulation.” (FR 6) After the implementation of the DAM system, the procedure will be “Same as above for checking metadata.” (FR 6) Only the Archives can approve changes to the descriptive metadata information. In the future, these changes will be monitored by the DAM system. In-house descriptive standards exist that are combined with the Library of Congress Subject Headings. Under the DAM system, the descriptions will also be Dublin Core and Public Broadcasting Core compliant.

From the available documentation, it appears that **changes** can only be made to the metadata, not the original footage. As mentioned above, only Archives staff can approve these changes. Once the DAM system is implemented, “Modification of metadata information will be limited to Archives personnel and tracked by system administrators. Changes to digital files will be monitored. The system can also determine if changes have been made to a file.” (FR 7)

Recordkeeping and Preservation

WGBH currently has no recordkeeping system, although there is an **Archives**, a WGBH-wide retention schedule and a checklist of items each production must send to the archives. The archives is responsible for preservation. Currently, productions create stand-alone FileMaker databases that feed into the Archives networked FileMaker 7 database. The database fields are searchable and have standardized data entry criteria. “**Preservation strategies** are based on technological obsolescence, re-use potential and user demand.” (FR 9) These strategies are not specified in the available documentation, though there is a WGBH policy to create and save original footage and footage logs.

A Digital Asset Management **system** is being introduced that will have separate implementations for current production work and for the Archives. WGBH must still maintain all of its analog film, tape and audio content. The DAM system will be an Artesia TEAMS product customized by WGBH. There will be a trusted repository contract agreement in-house. Once the new system is fully operational, “original footage will be wrapped in a QuickTime file wrapper and codec relevant to the source” (FR 11) with associated metadata added. Also, “productions can maintain an organization repository in TEAMS for their original footage and logs; this can be used for reference or editing purposes. When completed, the production unit will send original footage and digital log file(s) to the Archives for quality control review and final transfer to the institutional digital repository” (FR 5)

Assets are sent to the archives, where they are kept in a secure **storage** area. Upon reception in the archives, assets are compared to the data entry in the footage log to ensure the accuracy of the log’s data. The logs are FileMaker databases which feed into the archives’ database. Information is added to the assets that will be used to **track** their location.

Some digital cassette tapes (e.g., Digibeta) require special equipment for playback. To minimize or eliminate the risk of technological **obsolescence**, WGBH **migrates** obsolete or deteriorating digital and analog tapes to new digital formats. With the DAM system, there will likely be a conversion of digital files, as well.

Accuracy, Authenticity and Reliability

Accuracy

“Every asset received by the Archives is compared to the data entry in the log. This is done to assure accuracy of the log’s data.” (FR 6) The verification procedure is performed before the assets are transferred to the Archives’ secure storage area and made available for circulation.

Authenticity

The footage logs are read-only for users and so cannot be manipulated. However, actual footage is available for circulation, so there is no guarantee that it will remain authentic. Within the DAM system the files will be read-only (only copies of footage will be available to users) and a login procedure will be required to access the system.

Reliability

Not addressed in the available documentation.