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Audio Visual Digital Preservation Strategies: A case study in National Broadcasting Agency

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Abstract

This study discusses the digital preservation practice and challenges of the media repository in the broadcasting industry. This study covers the digital preservation practices in Wisma TV, Radio Television Malaysia (RTM) where it functioning as information hubs for media resources and assisting in the preservation of cultural heritage. However, these broadcasting archives have mostly gone unnoticed and neglected by those working in the archive sector. Qualitative research methodology is used by implementing the case study design in order to explored the challenges while performing the digital preservation work. This broadcasting organization media collective was envisioned as a distributed network of organizations that supported media production, exhibition, and study, functioning as resource centers for media and supporting regional preservation efforts.

Keywords: Audiovisual Archiving, Digital Preservation, Broadcasting Industry

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1.0 Introduction

The broadcasting industry has long been considered a significant spatial extension of this country's history. In today's world, broadcasting is surely quite modern and energetic, evolving in lockstep with technical innovation. The emergence of new media, combined with practical and ideological shifts in traditional media, has influenced societal transformation and, as a result, reshaped the terrain of global communication unification (Latif et al., 2013). These media collectives were envisioned as a distributed network of groups dedicated to the creation, display, and research of media, as well as functioning as information hubs for media resources and assisting in the preservation of cultural heritage. However, these broadcasting archives have mostly gone unnoticed and neglected by those working in the archive sector. This study aims to shift this equilibrium by engaging these artist-run organizations as part of a network of archives and collecting institutions dedicated to conserving independent media forms. Gbaje (2012) libraries and archives have traditionally functioned as the primary institutional focal points for preservation, and both types of organizations consider preservation to be one of their essential missions and responsibilities. In addition, businesses must foster a stronger internal digital preservation culture and a common terminology across the entire firm. Increasing the digital preservation skill set and more aggressively adopting digital preservation norms and standards would be necessary to achieve this goal (Delaney, 2015).

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Digital preservation can be described as the consolidation of policies, strategies, and actions implemented over time to ensure access and correct rendering of authenticated reformatted and born-digital content, regardless of the challenges posed by media failure and technological change. Thus, information preservation is intended to safeguard the information of long-term significance so that it can be accessed by present and future generations. This study covers the digital preservation practices in Wisma TV, Radio Television Malaysia (RTM) where all their television productions are produced, managed, and stored. This broadcasting organization media collective was envisioned as a distributed network of organizations that supported media production, exhibition, and study, functioning as resource centers for media resources and supporting regional preservation efforts. Thus, it is vital for the organization to aware of its challenges while adopting digital preservation activities in the organization.

2.0 Literature Review

2.1 Preserving the Audio Visual Collection

Digital preservation is critical in ensuring that cultural heritage and democratic history are preserved for as long as possible. It is one of the most fundamental functions of all research libraries to ensure that humanity's literary, scientific, and cultural record is preserved for future generations to read and appreciate. Post (2017) indicates that when it comes to preserving complex digital things, digital preservation procedures that work for simpler digital objects, such as refreshing storage media or moving objects to new file formats, must be significantly adjusted or specialized to achieve success. Thus, this process also will include the policies and procedures that will help the archivists to follow to ensure that they use only accurate methods during the preservation process. The largest media collections are often found in public or commercial broadcasting companies. These units archive and offer access to the main organization's broadcasted radio and television shows and unedited production material, program documentation, and other context information (Delaney, 2015).

2.2 Digital Preservation Practices

According to Ambacher (2011), it is possible to begin by taking incremental steps toward a better digital preservation environment without waiting for an out-of-the-box solution by developing and adopting a policy, set of best practices, and standards. The commitment to the progress of a digital preservation policy did not happen overnight; rather, participated in the strategies that contribute to the aims of digital preservation programs. An organization can develop a relevant and intelligent policy, but without a strategy and action to support these efforts, the policy is essentially a paper with no actionable function, according to Dressler (2017). In addition, Anyaoku, Echedom & Baro (2019) agreed that preservation policies should guide the development of strategies for preserving digital content, as well as the determination of which content should be preserved for a short, medium, or long time.

Collaborations can improve digital preservation by pooling resources, integrating expertise, and developing joint knowledge to improve digital preservation practice (Teper, 2007). Collaborations enable even small libraries to develop programs addressing the most fundamental digital preservation requirements. Schumacher et al. (2014) explained "It's important to remember that small and medium-sized businesses in need of digital preservation assistance are not as isolated as we may believe. "However, we must assist one another while also assisting ourselves". It's been discovered through digital preservation studies that no single institution will be able to keep everything safe. Preservation of digital information will necessitate collaboration (Hirtle, 2008).

Information experts are working to achieve this goal by digitizing significant materials at risk of deterioration due to age and condition (Anyaoku, Echedom & Baro (2019)). Further explained by (Fabunmi et al., 2006), a librarian is responsible for identifying works to be digitized, resolving copyright concerns, digitizing, providing metadata, and acquiring software to make such resources available, as well as for maintaining such resources in the form of a virtual library. Da Silva Júnior and Borges (2017), consequently, it was determined that a digital preservation policy would need to be developed in collaboration with the repository's personnel, collection curators, and administrators. It would be necessary for such a policy to be authorized by the highest levels of administration, and this would require the assumption of a genuine commitment from the institution to digital preservation concerns. Overall, to support a long-term digital preservation, it necessitates a safe, sufficient financial strategy, as well as an appropriate technology infrastructure and continuing, systemic administration of digital documents, Legino, R., et al. (2021)

3.0 Methodology

The research aims to discover and understand the digital preservation practice and its challenges at Wisma TV, Radio Television Malaysia (RTM); hence qualitative research is more suitable. It allows the researcher to learn and understand more than just initial responses and rationales. We conducted a semi-structured interview to obtain solid perspectives on the topic under consideration by the researcher Pathak, V., Jena, B., & Kalra, S. (2013). It will be easier and more convenient for the researcher to gather information through interview sessions because it will be one-on-one conversations.

Thus, the researcher can ask the interviewee directly about the chosen topic. The study's respondents are comprised of officers who are directly involved in digitizing audiovisual collections in this agency, which consists of staff in the collection management section of the Resource Center and Digital Interactive Engineering. The question posed to the selected respondent was divided into three (3) sections. The first section is about the demographic information about the organization. The next section is about digital preservation practice, including their policy, strategies, collaborations, staff expertise, and technological aspects. And the last section is the questions regarding

the challenges of digital preservation practices in that organization. In this section, there are about five (5) main points: funding, technical expertise, policy and standard, dependency on technology, and legal issues.

The data analysis procedure will be carried out using thematic analysis. Thematic analysis is a qualitative data analysis strategy that entails looking through a data set such as transcripts from in-depth interviews or focus groups and discovering patterns in meaning that appear throughout the data set Polonsky and Waller (2011).

4.0 Findings

4.1 Digital Preservation Practice

4.1.1 Policy

The digital preservation activities need to be planned well to ensure that all digitized collections are in good condition and to make sure they are all digitized accordingly and have quality checks on them. Sierman (2014) explains that the policy will make it easier for organizations to build their preservation policies, thereby assisting them in preparing to automate these policies when they become available. Referring to respondents, RTM does not have any distinct or specific policies and standards made by their organization. However, they refer to the policies and standards that are world widely used by the broadcast archive, for example, British Broadcast Corporation (BBC). For every project regarding digital preservation, they will follow the standard.

Meanwhile, respondents who oversee the technical part of the collections and materials also refer to some policies, especially to check the audio and video quality of the materials. In the digital preservation process, checking the quality of audio and video is one of the important criteria and processes because most materials that need to be digitized are outdated and retroactive. Wisma TV, Radio Television Malaysia (RTM) needs to be aware of using policies and standards for their digital preservation activities. It is to make sure that whatever they do will work accordingly and will not waste any resources and time on a certain project. In addition, there are not many issues regarding the policies they used since they use other policies and standards in their digital preservation process. They must ensure that they work according to their projects' stated policies, standards, and objectives.

4.1.2 Strategies

Concrete preservation plans and strategies are implemented daily to ensure that all work and activities perform better. Igberaese (2014) states that stability, accessibility, and long-term preservation of digital materials can be ensured by using appropriate measures at the outset of the project's implementation. The strategy will help the organization and department manage any risk encountered while managing and handling the audiovisual collections by sharing the strategy established during the building of a new broadcast channel of RTM known as TV6, which just ran in May 2021. This new channel is dedicated to broadcasting classic shows such as movies, retro dramas, entertainment, and so on that were once aired by RTM in the 1960s, 1970s, 1980s, 1990s, and early 2000s. So, to broadcast old footage of the movies and dramas, they need to come up with a few strategies in which to do the digital preservation of the collections to ensure they can broadcast good quality dramas to the viewers and follow the current standard for graphics which is high definition (HD) standard. Because some of the retro dramas and movies might be damaged over time, they all used old technology in producing those materials since they were all produced before the 2000s. The strategies that have been practised are the handling of AV collection in the right way, maintaining the good equipment because most of their work is just in-house and does not involve the outsourcing and strategies on the manpower performance indicator to encourage the staff to get the motivation to succeed the project in time.

4.1.3 Collaboration

Collaboration is very important to improve their skills and knowledge, especially in digital preservation activities; members of these communities of practice can work together regularly to exchange ideas and learn from one another. They will work as social learning systems where people work together to solve problems, share ideas, set standards, build tools, and build relationships with others and people who are important to them. Because communities of practice are naturally boundary-crossing, they are a good structure for cross-agency and cross-sector collaborations (Kwon, 2006). In addition, international collaboration is seen as the driver for building partnerships on digital preservation between the librarians, archivists, museologists, sociologists, economists, planners, jurists, and other kinds of information preservers other than the ICT practitioners (Kadir, I. K. A., & Yunus, A. M., 2017).

According to the respondents, the current collaboration has only been done with the National Film Development Corporation Malaysia (FINAS) by using the concepts of Government to Government (G2G). This collaboration aims to share, learn, and generate new ideas in the AV digital preservation process. In addition, both agencies are under the same ministry. The main limitation in implementing collaboration with the other organization or any other television production organization because they in the same is the same business model and competition on contents and productions of materials.

4.1.4 Staff Responsibilities

The implementation of AV digital preservation involves two (2) main responsibilities: collection management and technical work. It was corresponded by the respondents that this requirement is important to perform systematic and smooth digital preservation works. The study found that the staff involved in the digital preservation project need to know their responsibility in the information management skills such as cataloging, documentation, acquisition, and description of each AV material. Meanwhile, other staff are responsible for handling and operating the machines to do the digital preservation work. They need to master editing, ingesting the materials, and many more.

Each of the responsibilities requires skills by their staff so that they can work according to the pace of the digital preservation programs. Besides that, in the future, custodians will be required to take on a more consultative role and work in partnership with their clients to ensure that they meet compliance, regulation, and governance demands (Isa, A. M., & Nordin, N. M., 2012). To enhance the staff's responsibility and expertise, RTM also takes the initiative to send their staff to attend more training and courses related to digital preservation programs. As technology keeps changing and evolving, staff need to attend training to ensure they know how to apply for the work according to the current system.

4.1.5 Technological Aspects

In archive and library management, we have seen that many organizations have shifted their operations and tasks digitally. That is the main reason digital preservation activities contribute to this situation. Digitization for AV preservation creates digital content and material being stored and accessed for a long time. To support the need for digital AV materials, RTM as a national broadcast archive needs to pay full attention to and support digital preservation. The study found that RTM archives had considered applying the digital preservation of sound files, operational faults in software and hardware usage, file transfer difficulties, and internal and external attacks. This broadcast archive needs to apply whatever method, especially its software and hardware, to ensure that its digital preservation work can be done without any problems. The respondents also explained that they have full control and responsibility for the software and hardware used and must maintain the hardware periodically according to each type of machine. For the software, they purchase it from third-party companies. They do not have the facility for research and development to develop the in-house software to be used in RTM.

5.0 Discussion

Based on the study, the researcher has categorized digital preservation practices into five (5) categories: policy, strategies, collaborations, staff responsibilities, and technological aspects. During the data collection activity, the respondents gave great feedback regarding each category. The researchers have understood the AV digital preservation practices in RTM. Currently, RTM's strategy is to create a data center called Media City. This strategy is beneficial to positively impact the implementation of AV digital preservation, especially in the broadcasting industry in this country. This project enables them to have a data centre to keep all the audiovisual materials in file-based formats. This data centre will be able to keep two hundred thousand (200,000) hours of materials in which they would have big storage. We are all aware that digital preservation exists because of technology development. It is a good move that they want to improve their storage to a file-based format where they can keep the materials in their database. However, transforming all materials to file-based format requires much effort and work, especially when dealing with outdated and old AV collections.

This study recommends that the RTM be a center of excellence for AV digital transformation that enriches AV preservation through innovation and demonstrates the concerns associated with transformative technologies. Roles as a national broadcasting agency, this center can establish competitive advantages between all AV institutional repositories by constructing national standards on AV digital preservation practices. A competitive advantage includes using existing resources, involving low cost, staff highly skilled, commitment, geographical factors, and access to the new technology (Rambeli, S. A., & Yunus, A. M., 2018). On the other hand, this center can take responsibility for the data ownership and ethics of AV collection management. With these efforts, the centralization of the AV collection and information management will be managed and controlled systematically and beneficial to many parties such as the public, government institutions and the broadcasting production agencies.

6.0 Conclusion and Recommendations

Digital preservation is an important agenda for national strategies, especially for any information institution that handles the AV collection. RTM is a national broadcasting agency that bears great responsibility for ensuring that each of these broadcast materials is always accessed and preserved as one of the national heritage resources for the future generation. The need for aggressive strategies in making the AV digital preservation programs should be on a national agenda and involve all other agencies in the same business to combine these programs. Nowadays, there are no boundaries in the information management practices; all institutional repositories should hold their hand together to ensure the availability, conveniently and opportunely in the dissemination of information widely. As technology evolves rapidly, they must use the benefits to preserve all their materials and collections digitally. Managing and working on digital preservation activities will still be challenging, especially in technological aspects. However, it still can be solved using good solutions and recommendations. For the future research study, the researcher collected the data from other broadcasting organizations that Malaysia has, for example, All-Asian Satellite Television and Radio Operator (Astro) and Media Prima Berhad (MPB). This research work will allow the researcher to make comparison initiatives undertaken by several private broadcasting organizations in Malaysia. Furthermore, it will also be beneficial to the broadcasting industries in Malaysia to draw their attention to the digital preservation aspects of their organization. In this regard, opportunities exist to assist broadcasting industries with understanding how audiovisual materials can be optimally supported and utilized in the future through digital preservation activities.

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Paper Contribution to Related Field of Study

This research paper contributes to the field of Library and Information Management.

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