

**Wentzville Community Historical Society's
Digital Preservation Plan**

**By Jennifer Piegols
MLIS Candidate
University of Maryland
College Park**

Table of Contents

Executive Summary	3
Overview	4
Collections	5
Future Goals	6
Next Steps Plan	8
Storage and Geographic Location	8
File Fixity and Data Integrity	9
Information Security	9
Metadata	10
File Formats	11
Digital Preservation Policy	12

Executive Summary

The Wentzville Community Historical Society's Digital Preservation Plan was originally created as a semester long consultant project under the guidance of Trevor Owens, Head of Digital Content Management at the Library of Congress. During the project, I interviewed the President of the Historical Society, Ms. Lois Kessler. We discussed the collections of the historical society, the state in which their collections are currently stored, the resources available to the volunteer-based society, and digital collections the society would like to acquire in the future.

At the time of the creation of this plan, the Wentzville Community Historical Society's digital assets consisted of digitized photographs either from within their collections or temporary donations. Materials were sporadically stored and copies were non-existent. They did not have a website or online presence but were in the stages of building a website with the intentions of linking their PastPerfect account to provide full access for their members and limited access to the general public. In addition to their new website, the society would like to add oral histories and photographs of their museum objects to their digital collections.

The following materials provide various steps that the Wentzville Community Historical Society can take to better organize and preserve their current digital materials as well as create precedence and strategic plans for ingesting new digital objects and collections in the future. This document includes an in depth introduction to the collections, resources, and future goals of the society. Following the introduction is a next steps plan to both minimally and thoroughly aid the society in adhering to the NDSA's Levels of Digital Preservation, the authoritative document that all recommendations within this plan were based on. Lastly, this document provides an example digital preservation policy that the society could adopt and follow. The policy is based on the next steps plan and considers both financial and volunteer constraints. Both the next steps plan and the policy address the following categories as suggested by the NDSA's Levels of Digital Preservation: storage and geographic location, file fixity and data integrity, information security, metadata, and file formats. Some of the policy points suggest actions to help the society reach the highest levels of preservation, while others offer minimal actions that will help with preservation and work within the confines of the society's available and easily obtainable resources.

Overview

The Wentzville Community Historical Society is based in the small, but growing, town of Wentzville, Missouri, located on the outskirts of St. Louis. The Society was founded around 1975 when a group of town citizens began to plan for a celebration of the United States' Bicentennial. As they focused on highlighting their history for this national event, they also concluded that they should be preserving their town's history in general. Their mission became "To collect and preserve information pertaining to historical events of Wentzville and surrounding areas; to assume responsibility for proper recognition and preservation of various historical landmarks, relics, souvenirs, and Missouriiana, to do suitable honor to those hardy pioneers of this area who laid the foundation of our present happiness by arranging celebrations and meetings in their memory; to engender rightful pride in our rich history; and to establish and maintain a museum, library, and archives." In the first few years, the founding members were quite active and enthusiastic. They participated in research, wrote articles for the local newspaper and even made the great achievement of helping put the town's old garment factory on the historical buildings list. However, as time passed, these members became less active with the society, which in effect, began to struggle. And yet! The society persevered and continued to build their collections!

With an undying passion for the town's history, the society gained holding space across multiple buildings and obtained a caboose train to create a small museum. Their holdings are stored in the town's senior center's basement, a storage building, a local organization that offered 3 lateral file cabinets and the caboose museum. As their materials are scattered and their only space is a room at the senior center, it is hard to provide users with access to the archives. However, they do host some events and fundraisers to increase awareness of their historical materials. For example, their caboose museum displays various photos and items and are changed out every so often. The Society holds four general membership meetings each year and brings in guest speakers. At the town's festival, Wentzville Days, the Society hosts a beer booth and keeps their museum open for any passing interested locals. They use this event as their main fundraiser and to attract potential users and lovers of the town. In addition, they have also participated in events like the town's Fall Festival and have been known to hold quilt shows to display some of their archival textiles and sell baked goodies. Lois Kessler, President of the Wentzville Community Historical Society since March, will help see their first Cemetery Tour, highlighting various significant or interesting members of the town, take place on the 27th of October and hopes to implement Trivia nights. The Society continues to increase their fundraising ventures and have reached out to local business and organizations to sponsor various activities.

Despite the Society having less than optimal space, there are more than 100 members! As many of these members are elderly and the Society is a purely volunteer organization, there are only a core group of approximately ten to twenty regular volunteers available to work on various projects. However, because it is volunteer work, the amount of people depends on the individual project and it sometimes takes the right people with the right skills to work in an archive.

Between limited space, manpower and a wall between patrons and the collections, the Society does not see themselves as having a specific user base. They have recently contracted for the creation of a website, something now seen as vital for the presence of an archive; and their main hope is to link their PastPerfect database with the website to offer easy and general access to what this small group has to offer. Ms. Kessler believes that these new technological assets will offer the chance for genealogical and personal research to flourish, as well as offer the opportunity to local middle and high school students to interact with primary sources. Furthermore, because Wentzville is considered the fastest growing community in Missouri, the Society hopes to build relationships with new residents and foster an interest in their new home town. They have started an online social media presence with their Facebook page (followed by a little over 2,700 people!), but Ms. Kessler feels that it could be beneficial to also develop a Twitter and Instagram feed to appeal to the younger generations. Lastly, after some fallout between members and the Society in previous years, Ms. Kessler is working to bring back any alienated members and improve relations between the Society and its faithful following.

Collections

As Ms. Kessler only began her Presidency in March 2018 and the archives is a bit disorganized, she is still learning about the holdings of the Wentzville Community Historical Society. However, she listed an overview of some of the physical materials that the Society maintains. For objects, the Society possess uniforms and clothing, furniture, farm implements, bedding, an old sewing machine (as the town housed a garment factory for about forty years), and tobacco stencils. The tobacco stencils illustrate the town's pre-Civil War tobacco driven economy for men of the Wentzville area started the Liggett & Myers Tobacco Company. Moreover, the Society possesses books and ledgers from old stores, old newspapers, newspaper clippings, photographs, old year books, and possibly some old maps.

Likewise, on the digital spectrum, the Wentzville Community Historical Society's digital holdings are small and under-preserved, as many small institutions find themselves. But the first step to recovery is admitting that you have a problem, and Ms. Kessler was very truthful in saying that their digital holdings were "not managed very well." Currently, the Society has between 1000 and 2000 digital images. Many of these images contain evidence of the

Wentzville Community Club's homecoming festival, which included a Queen Contest, kids parade, baby contest and a parade. The Society also has other scanned photographs of early businessmen and photographs of a cyclone that hit a nearby town of Gilmore (that has since been incorporated into the Wentzville community) in 1915. Because many of the original photographs were purchased at auctions, there is very little identification. They are stored on two laptops and a jump drive, but some of the images are only stored on one of the laptops.

Again, a limited volunteer staff, poor facilities, and a limited budget (the Society's budget is purely from donations and fundraisers) prevents the Society from creating access and preservation care for these digital objects. According to the National Digital Stewardship Alliance's (NDSA) Levels of Digital Preservation, there are some small steps that the Society could take to improve the longevity of their digital assets and prevent an accidental, but catastrophic, disaster. The most concerning is that the materials do not seem to have duplicates and are only stored in one location. Because of the volunteer status of the Society, fixity checks were probably never a thought, but to be fair, a lot of institutions don't always think of fixity checks. It is unclear at the time who has access to these images, but since the images are not particularly open to users at this point, access is most likely restricted to Ms. Kessler and volunteers she deems qualified to have authority over the images. The Society's use of Past Perfect offers some homage to providing metadata for the images, but how complete this metadata is remains unclear. A good first step here would be to create and maintain an inventory. Currently, the Society has an inventory of about 900 photos; however, Ms. Kessler has scanned another 1500 photos without creating an inventory and there are more photographs scattered throughout the collections. Lastly, as the images are scans, there is probably a limited amount of file formats, which would be great! Overall, the Wentzville Community Historical Society has a lot of digital preservation issues to address, but luckily seem to have a determined and open president and volunteer group to get this work done.

Future Goals

Currently, the Society's digital holdings contain images from their community. Photos that are only stored on a single laptop were from members who allowed the Society to scan their photographs, but not retain the originals as they recognized that the archives needed some more organization. In the future, the Society would like to scan all the photographs they have and load them into their PastPerfect system. They would also like to take images of their objects and upload them into the database as well. By adding these physical photographs to their online database (which will be linked to their new website), they will have the opportunity to offer their members access, and limited access to the general public, to their holdings despite the lack of a

physical space. With talk of a new multi-generational space for the town, the Society hopes to alleviate the space issue by obtaining a spot there or a better location in the senior center.

Furthermore, the Society would like to extend their digital collections to include videos of older residents in their communities to preserve their memories. This addition of oral histories would provide an even deeper level of history that one cannot always find in physical objects. At this time though, they do not have the funds or volunteers dedicated to such a project. However, Ms. Kessler believes that with a solid work plan and specific benchmarks, there could be a core volunteer group ready to donate more hours to the Society. Besides manpower, the Society would also like to apply for a grant but are unsure of what they should be asking for other than a good scanner. Similar to finding people, a solid agenda and workflow plan could benefit the Society's future digital goals and the community overall.

Next Steps Plan

Storage and Geographic Location

Currently, the Wentzville Community Historical Society stores their digital materials on two laptops and a jump drive; however, not all of their materials have copies and some are only stored on a single laptop. In April 2018, the Society began using Past Perfect to organize their digital holdings. Of the 1000-2000 photographs that have been scanned, about 400 have been entered into the system. Because there is a high risk of a laptop failing, it is important to create a centralized location for the digital objects and create multiple copies of all of the files.

At a minimum, the Society should congregate all of their digital materials into a central system, for example a local server, perhaps one of their current laptops, in addition to their Past Perfect system. They should then make at least two copies of their items and store those copies on two external harddrives (each costing between \$30.00 and \$60.00). One of the hard drives may remain with the materials, but the other should be taken to a different location, i.e. a safe at the president's house, the local library, or any other safe area not with the collections. These changes would satisfy level one of the NDSA's levels of Digital Preservation.

Once those copies are secured, the Society could boost their storage security by uploading all of their files to an online server such as Google Drive. Google Drive offers 15 GB of free storage with a normal gmail account. If, or when there is need for more storage, Google can upgrade to 100 GB for \$20.00 a year or 200 GB for \$30.00 a year. By placing a copy of their digital materials on Google Drive, they have diversified their disaster locations as addressed in level two of NDSA's recommendations. Google Drive offers the Society to maintain intellectual and physical control over their materials. If they wish to share their content without cost to users, they could also explore Wikimedia Commons or the Internet archive, free online content management systems, however, the Society would no longer be able to charge patrons for use of their materials.

Lastly, if the Society has accomplished the previously mentioned suggestions, they could advance their geographic location and storage by sending a copy of their collections to a fellow historical society in another disaster area, such as the east or west coast, or they could enroll with the local Missouri DPLA hub, a state-based conglomerate of the Digital Public Library of America. This organization would allow for safe storage, but may reduce the amount of intellectual control the Society has over the digital materials it shares with the hub. For more information on the Missouri DPLA hub visit,

<https://dp.la/search?partner%5B%5D=Missouri+Hub>.

File Fixity and Data Integrity

File fixity refers to the stability of the digital object and maintaining non-corrupt forms. To date, it is unclear if there has been any practice on checking file fixity because of the disarray of the digital collections and the changes in presidencies within the Wentzville Community Historical Society. Despite the intimidation of file fixity, small, normalized steps can improve this aspect of digital preservation.

On the most basic level, the Society could ensure file fixity by scheduling quarterly quality checks for all of their materials. The checks would include recording the current amount of files then verifying that the number of files remains the same with every new check. For example, if there were 4 files in folder X in December 2018, there are still 4 files in folder X in March 2019. Despite the use of Past Perfect, it is important to check the amount of files to ensure that something was not accidentally or maliciously deleted.

In addition to scheduling file size checks, the Society could also include the use of a fixity website such as www.weareavp.com to check cryptographic hashes in bulk. For this process, files would need to be uploaded into the online software and their hashes (a long string of identifying numbers and letters) should be recorded. When checking the hashes at a future date, the same files should be uploaded and the “new” hashes should be verified to match the previously recorded identifier.

Lastly, to reach the highest level suggested by the NDSA, after completing the previous suggestions, they could use a virus scanning software to ensure that their files are not corrupted or carrying malicious malware. Also, they can create and maintain a log to track all of their fixity checks, hashes, file numbers, and other information to maintain their data’s integrity.

Information Security

Similar to file fixity and data integrity, information security helps to prevent loss of information from both accidents, malicious attacks or bit rot. It is also something that the Wentzville Community Historical Society is not particularly tracking. In order to reach level one on the NDSA’s Levels of Preservation, the Society should identify and create a precedent for who has access to files. By creating a hierarchy for who can read, write, move and delete digital objects, they can secure their materials and prevent an untrained volunteer from accidentally deleting something. They should also identify who has the authority to enter the information into Past Perfect to protect the integrity of the image and the accompanying metadata to prevent misinterpretations and false labels. They could take this a step further, and reach level three by logging who makes changes and when those changes are made. Logged tasks should include

movement of files, deletion of files, and any further preservation actions. Eventually, once the previous steps have been taken, the Society could reach level four by auditing those logs every quarter to track who has made changes to materials, what types of changes are regularly occurring, and to ensure that all materials are still available and accessible.

Metadata

According to the current President of the Society, collections metadata is severely lacking overall. For the 400 items that have been entered into Past Perfect, there is little information on the who, what, when or where of the photographs. Donor records were minimally kept, if kept at all. However, any information that the Society does have on the records has been entered into Past Perfect.

An important first step for this area is to create an inventory of all the digital objects that notes their digital location and includes any information, or links to information, on that object. An Excel spreadsheet with various column heading such as image title, location, donor, who, where, date, and event could be helpful in creating this inventory. Although this is time consuming, it will help to organize the important contextual information that is necessary for identifying materials and what they represent. Using Past Perfect is also a good way to keep the known metadata with the object; however, until all items are entered into Past Perfect, it is helpful to know what the Society has and where it is located.

After an inventory is created, it would benefit current and future caretakers within the Society to log administrative and transformative metadata about the materials. Administrative metadata could include more detailed information on donors and who accepted the donation or made a purchase. Transformative metadata would track where the information and objects were stored and any changes that were made to them. At this point, the Society could reach level two for NDSA's recommendations for metadata.

To reach level three or four, the Society could include in their spreadsheet or Past Perfect entries the technical and preservation metadata. Technical metadata would include file formats, and picture size and resolution. Preservation metadata would include any issues that may occur in maintaining a useable copy of the digital object. Whatever level the Society chooses to reach, a backup of the metadata should be made and stored with the collections and on their various storage systems (hard drives/Google Drive).

File Formats

Because most of the digital materials the Society currently has are scans of photographs, there is already a limited amount of file formats used for collections. However, to solidify the first level of NDSA's recommendations, the Society should encourage their patrons to submit or volunteers to save images and other digital materials in specific and limited formats such as jpegs, tiffs, .doc, or mp3 and mp4. With the addition of oral histories, specifying and committing to a singular file format will help make maintenance of the files easier and manageable. To enforce this, the Society should consider creating a donation policy that volunteers and donors can reference.

In addition to formalizing their accepted formats, the Society could also create an inventory of the types of formats that they already have. This could simply be an extra column in their excel inventory or a required field in their Past Perfect record. Lastly, to reach level three and four, the Society should monitor their inventory for any formats that may have become obsolete and migrate those files to a better format. Review of the formats should be done annually unless all of the formats are the same.

Conclusion

Overall, the Wentzville Community Historical Society has a lot of digital preservation issues that should be dealt with quickly. However, the most important steps to take are making copies of their collections and diversifying how they are stored (i.e. external hard drive, Google Drive). An inventory of their digital holdings would also benefit the society as it would identify what they have, how much they have, and what can be accomplished quickly and efficiently. While many of the above recommendations will help maintain intellectual control over their collections and prevent further preservation issues, the Wentzville Community Historical Society should do what they think is best for their collections within their tight budget and small volunteer work force.

Digital Preservation Policy

Wentzville Community Historical Society

I. Purpose

This policy is to guide current and future society members and volunteers in protecting their digital materials and upholding their mission of collecting and preserving materials pertaining to Wentzville, Missouri and its surrounding areas. All portions are directed toward reaching the highest levels of digital preservation as defined by the [National Digital Stewardship Alliance Levels of Digital Preservation](#).

II. Objectives

- A.** Reinforce the society's mission: To collect and preserve information pertaining to historical events of Wentzville and surrounding areas; to assume responsibility for proper recognition and preservation of various historical landmarks, relics, souvenirs, and Missouriiana, to do suitable honor to those hardy pioneers of this area who laid the foundation of our present happiness by arranging celebrations and meetings in their memory; to engender rightful pride in our rich history; and to establish and maintain a museum, library, and archives.
- B.** Protect current and future digital materials from destruction or obsolescence
- C.** Establish a hierarchy for digital care and guidelines to ensure continuity of preservation across presidencies and time
- D.** Introduce and educate future members and volunteers on basic digital preservation practices

III. Nature of the Collections

At the time of this policy's creation, the Wentzville Community Historical Society digital collections consisted of scanned photographs from within their collections and from outside donors. Many of the materials are stored on single laptop computers or a jump drive. Future collections could include additional digitized photographs, oral histories, and digital imaging of the society's material objects.

IV. Strategies

- A. Storage**

1. The Wentzville Community Historical Society will create and maintain a centralized location for all of their digital materials. This central location will be in addition to their Past Perfect collection management system.
2. The Society will create a comprehensive copy of all digital materials and store this copy on an external hard drive. The hard drive will be stored at a secure off-site location such as a safety deposit box, the President's personal safe, or the local library.
3. If the budget allows, the Society will create and maintain a Google One account and create another copy of their digital materials for internet storage.
4. Subsequent copies of the collections should be made quarterly or biannually, depending on the volume of new materials, to all copy locations.

B. Fixity and File Integrity

1. The Society will create an inventory spreadsheet or document to track their digital materials.
2. The President or a responsible volunteer will refer to the inventory and perform an audit of the digital materials biannually to ensure that files were not accidentally or maliciously removed. If files were lost or corrupted, replacements should be obtained from one of the other copies.
3. Every two years, if volunteer time allows, the Society will upload their digital files to www.weareavp.com to check file *fixity*. *Hashes* should be recorded within the prepared inventory to ensure the integrity of the files. If files were lost or corrupted, replacements should be obtained from one of the other copies.

C. Security and Permissions

1. All volunteers will be trained by the President or a designated trainer on how to appropriately name and copy files before they gain access to the materials. Volunteers will also be trained on how to accurately input the materials into Past Perfect before they begin working with those materials and software.
2. Volunteers will log any changes, additions, copies, or deletions and the date in which the actions occurred in an accompanying spreadsheet or within Past Perfect.
3. All work performed by volunteers shall be checked by another volunteer for quality control.

D. Metadata

1. Inventories for each record type (i.e. photographs, audio files, *born digital* documents, scanned documents, objects) will be created for existing and future digital materials. Copies of the inventory will reside within the folder containing the collection materials. The inventory will include information including, but not limited to, file title, location of file, creation location, donor, collection, people, dates, and events. Technical metadata can also be represented in the spreadsheet and include information such as file format, picture size, and picture resolution.
2. All appropriate metadata will be uploaded to the Past Perfect instance of the digital materials.
3. Metadata on donor transactions will be maintained either digitally or on paper within authority files. Authority files should be kept in a separate folder within the Society's system.
4. Using a spreadsheet or Past Perfect, volunteers will note any changes made to files.
5. Backups of all metadata will be made quarterly.

E. File Format

1. The society will strive to save their files in a singular format. They will also encourage donors to format their materials to conform to their predetermined formats.
Suggested formats:
 - JPG or TIFF for photographs
 - MOV for videos
 - DOCX or PDF for documents
 - MP3 or WAV for audio
2. Digital photographs will be named in the following format: yyyy-mm-dd-subject-of-photo.jpg and will be saved in folders based on year, event then donor. The date should indicate the date of the event. (Example: 2018\ 2018-10-31-Fall-Festival\ Jane Doe\2018-10-31-Queen-Float (slashes indicate cascading folders.))
3. Photographs of objects will be named in the following format: yyyy-mm-dd-object-position. The date should indicate the date the photograph was taken. (Example: 2018-05-23-sewing-machine-front).
4. Oral histories will be named in the following format: yyyy-mm-dd-interviewee. The date should indicate the date on which the interview occurred, not when it was loaded onto the server.

5. Born-digital materials that are transferred to the society may maintain their original naming conventions for the purpose of preserving *original order*. If the president believes the file names should be changed to provide easier access, the original titles should be noted within the file's metadata.
6. If formats become obsolete, the Society will take financially minimal measures to migrate files to useable formats. Formats should be checked annually if there are more than three formats for each record type (i.e. .doc, .pdf, and .txt).

V. Roles and Responsibilities

The elected President of the Wentzville Community Historical Society will oversee that this policy is enforced. Changes can be suggested to the President. All changes must be approved by the President, or if s/he deems necessary, the board and/or general membership.

Note on Copyright: It is the responsibility of the President to ensure that copyrighted materials are protected and the society has acquired the proper rights to all materials that are accessible online.

VI. Economics/Sustainability

Due to the donation-based nature of the Society's income, it is up to the elected president and the society members to decide on initial and future expenditures relating to digital preservation. However, they should make every attempt to create and maintain a stable environment for and practice of digital preservation.

VII. Glossary

- A. **Born digital** - Information created in electronic format (SAA Glossary)
- B. **Fixity** - The quality of being stable and resisting change. (SAA Glossary)
- C. **Hashes** - Numerical and alphabetical strings created by a fixity program used to compare files and check for corrupt bits
- D. **Original Order** - The organization and sequence of records established by the creator of the records

VIII. Date and Author

This policy was created in November 2018 by Jennifer Piegols, MLIS candidate at the University of Maryland College Park.

IX. Related Resources

Library of Congress. (n.d.). Scanning Your Personal Collections. Retrieved from http://www.digitalpreservation.gov/personalarchiving/documents/scanning_collections.pdf.

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