Digitization

UPLINK can digitize your collections for you if you do not have the capacity or time to do so in-house. This webpage will walk you through:

- Which formats each service hub can digitize
- UPLINK's digitization standards
- What you will need to do to digitize as an in-kind contribution

What Each Service Hub Can Digitize:

Lake Superior State University:

- Standard sizes of paper documents and photographs

Michigan Tech University:

- Paper and photographs up to 12.2 by 17.2 inches (flatbed scanner)
- Paper and photographs up to 42 inches wide (sheet-fed scanner)
- 3D objects up to height of 9.8 inches, diameter of 7 inches, and weight of 6.6 pounds
- Slides
- 35 mm negatives

Northern Michigan University:

- Paper documents and photographs up to 43.3 by 39.4 inches
- Negatives up to 8 cm by 27 cm
- Slides
- 16 mm film
- Cassette tapes
- Microcassette tapes
- Reel-to-reel tapes
- Records
- VHS tapes

  NMU can also transfer these digital media to the UPLINK hard drives:
- 3.5 inch floppy disks
- CDs
- DVDs

Digitization Standards

Before digitization begins, the service hub (or the service hub and the heritage organization if the heritage organization is doing its own digitization) will decide on digitization specifications for the project. The specifications might vary slightly depending on the project, but they will largely conform to the following guidelines:

Scanner and Other Equipment Settings

- Text: 300 dpi and 24-bit color
  - If the text is going to be run through OCR (Optical Character Recognition, a software that makes scanned text computer-searchable), a higher dpi might make the OCR more accurate. If there are small details, a higher dpi might also be necessary.
- Still Images: The ideal dpi varies greatly depending on how fine the details in the images are. 600 dpi and 24 bit color is typical, but a couple of test scans at different dpis should be run at the start of each project to see if a higher dpi is needed to pick up all the details or if a lower dpi is sufficient.
- Audio: sample rate 96 kHz, 24-bit depth

File Formats

- Text
  - Access: PDF
  - Preservation: TIFF
- Still Images
  - Access: JPEG
  - Preservation: TIFF
- Audio
  - Access: MP3
  - Preservation: WAV
- Video
  - Access: MP4
  - Preservation: MOV

Directory Structure and File Naming

- Each collection will have a set directory structure and file naming system.
- The directory structure will be: UPLINK/[Heritage_Organization_Name]/[Identifier]/[File Name].
- The start of each file name will be the collection identifier. Depending on what makes sense for the collection, the rest of the file name might look like just an item number, a series name and an item number, a date, etc.

Our digitization standards are based on the Federal Agencies Digital Guidelines Initiative (FADGI). You can learn more about FADGI and view their guidelines here.

If You Want to Digitize Your Own Records:

You can reduce the cost of getting your collection online by digitizing your own records. To do so, of course, your organization will need to purchase or have access to your own digitization equipment. The service hubs (NMU, MTU, LSSU) can potentially let you use their digitization equipment. Contact Annika Peterson (annipete@nmu.edu) for more information.

For text and photos, you will need a flatbed scanner that can scan at least 300 dpi for text and at least 600 dpi for photos. Such a scanner costs anywhere from $100 to $300 (or more) depending on the dimensions you need it to be able to scan and the quality that you want.

For audio and video records, that means a playback device for the format and adapters to connect the playback device into a computer. The cost varies greatly depending on the format, but it can be thousands of dollars for good equipment. Unless you have a very large collection of a single format, it likely won't be worth the cost. We do not recommend simply playing the item aloud and trying to pick up the audio with a computer microphone as the quality will likely be poor.

UPLINK staff are happy to talk to you about what equipment to buy and whether it makes financial sense to digitize your records in-house. If you decide that digitizing in-house is right for your organization, here is what would happen next:

- If desired, UPLINK staff would confirm that your equipment can scan your collection properly and train the volunteers who are going to be digitizing the collection.
- UPLINK staff would work with you to determine the best scanner settings for the collection and a file naming convention.
- You would scan and save the images (or audio or video) in the access and preservation file formats with a unique ID number.
- You would then transfer those digital files using our digital transfer protocols.