

Digitization and Personal Digital Archiving

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My approach to digital archiving and digitization was born more organically than the ways described in most writing I have seen on the topic. The steps outlined in this chapter were developed through trial and error after years of seeking out answers to patron questions. The public library I work for offers our patrons access to digitization equipment, and my job, in large part, has been figuring out how to guide our patrons through the processes that come with using it. After mastering the ins and outs of the equipment, the next questions asked by patrons are often, “How do I organize my photos? How do I back up everything? Where do I even start?”

Inspired by a 2017 *Computers in Libraries* article by staff at the Athens-Clarke County Library’s Digital Media Center (Stanley and Wright 2017), I developed a series of classes that are taught in the following order:

- DIY Digitization
- DIY Digital Archives
- DIY Oral Histories
- Repairing Photos with Photoshop
- Digital Estate Planning

While we don’t have enough room in this chapter to dive into all of this content, at the end I have included some resources that were helpful when developing these programs. In this chapter, I explore the following topics:

- personal digital archiving
- digitization at the library

Personal Digital Archiving

When talking about digital archiving, I like to answer

the questions Why, What, Where, and How.

Why

Why are we talking about digital archiving? Everyone has different motivations for organizing their digital files. Most of my library patrons want to preserve their family and personal history. They want to ensure their family photos, home videos, and genealogy documents are shared with loved ones and available to future generations.

Technology has changed the way in which we store information. Most people no longer print out photos, cut them up, and paste them into scrapbooks (thank goodness). With new technologies introduced into the mix, people have to adapt how they store and share information.

Unlike physical files of photos that can be pulled out of boxes and put back in, digital files can be much more difficult to sort without good archiving practices. No one wants to lose their files. If you can’t find a file, it functionally does not exist. When talking about digital archiving practices, there are two main ways you can ensure long-term access to your digital files:

- Back up your files.
- Name and organize your files.

What

What are we saving? When I refer to digital files, I generally mean the following types of documents:

- photo (.jpg, .png, .tiff)
- audio (.wav, .mp3)

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- video (.mp4, .mov)
- documents (.pdf, .tiff)

When talking to library patrons, I make sure to discuss file extensions. File extensions are an important part of file naming. It is good practice when working with patrons to never assume the base level of knowledge regarding file types. I have found that walking through the file types before diving into naming schemas can help patrons feel more comfortable looking at file names.

Where

Where are we saving our files? Storage locations can be broken down into three major types:

1. *Local storage*: phone, desktop computer, tablet, laptop.
2. *External storage*: memory card, flash drive, external hard drive, portable flash drive.
3. *Online cloud storage*: iCloud, Google Drive, OneDrive, Dropbox, Amazon Drive, and so on.

Most users employ a combination of two of these, if not all three. One thing all these storage locations have in common is that they all have an expiration date, functionally speaking.

In general, the life of storage media is cut short by at least three factors: (1) use and handling, (2) lack of durability, and (3) obsolescence. Obsolescence is the most frustrating of the factors to work with in a digitization lab. When suggesting storage locations, I always lead customers away from storing files on DVDs, CDs, and floppy disks (yes, someone tried it last year).

Lest you think all problems are solved by cloud storage, there are a few things to keep in mind with cloud storage services:

- Cloud storage services require a continued financial investment. Even the cheapest cloud services can cost \$0.99 monthly. While an \$11.88 annual investment is not much, it can add up quickly once you store more information or if the price increases to accommodate your increasing storage needs.
- Cloud storage services are not forever. While it seems like Google, Amazon, and Apple may be around until the end of the internet, the services they provide may not be. (Looking at you, Google Inbox.)
- And finally, cloud storage services are not always the safest way to store your information. Data breaches and targeted account hacking make the information you store online vulnerable.

So where do you store your digital files? I always

recommend the 3-2-1 Method. The 3-2-1 Method calls for you to save three copies of your digital files with two of your copies stored locally (on different devices) and one copy stored off-site (on an online cloud service).

The best example I saw of this method in action was a library patron who frequents my lab. She and her husband back up their files to two external hard drives. One hard drive is hooked up to her computer, where it is updated daily. The other hard drive is stored in a fireproof safe and is switched out with the first hard drive monthly. She also uses a backup service on her computer that backs up files and information automatically with a third-party company.

While not everyone has the means or the discipline to follow such a strict regimen, even backing up one copy of your files will ensure they are available in the event something happens to your laptop or computer. Do your future self a favor and back up your files before disaster strikes.

However you decide to do it, make sure you back up your files regularly. For some people, this is done by setting up a monthly reminder. I tend to back up files after finishing a large sprint of work.

How

How do we name files? How do we store information about files? How do we find the files we need? How do we organize files? The How questions are some of my favorite to talk about with library patrons. Some questions are straightforward. Some are harder to answer.

HOW DO WE NAME FILES?

Unfortunately, there is no easy answer when it comes to naming files. File naming is as personal as the files we store. There are experts who work to answer this question for institutions with large collections. For the most part, public library users are working on personal collections. For them I offer a few tips and a few examples of naming schemas I like.

- *Be descriptive.* Melody Condrón, in her book *Managing the Digital You*, asks the question, “If I see this file name in 10 years, will I know what it is about without opening it?” (Condrón 2017, 22).
- *Don’t use acronyms.* This is especially important for personal collections. It may make sense to you, but your family or digital executor may not be working with the same set of information.
- *Avoid special characters.* These mean something to a computer, so avoid characters like “/”, “\”, and “?”.
- *Use underscores, not spaces.* Some software does not recognize spaces, and many machines will automatically add “%” instead of a space. Save

yourself some grief later and use underscores between distinct parts of a file name.

- *Avoid long file names.* Machines can handle only so many characters in a file path. As a rule, try to avoid file names longer than thirty-two characters.
- *Whatever you do, be consistent.* Once you settle on a naming schema to use for your project, stick to it. I recommend keeping your file naming schema on a digital or physical sticky note in your space. When you're naming something new, do a quick check to make sure it follows the pattern you have set up for yourself.

A few naming schema examples are as follows:

yyyymmdd_location_subject_uniquenumbers.ext

surname-firstname_yyyyymmdd_state-place_item
.ext

name_date_place_item.ext

yyyy = year, mm = month, dd = date with 0 in front of single digit dates

Organizing your dates this way makes your pictures easier to sort by date.

For example, some friends and I took a trip together to New England. We started our journey in Boston. The first image I have is of Great Bay, and it was taken on November 22, 2016.

Using the `yyyymmdd_location_subject_uniquenumbers.ext` schema, I get the following file name:

Date: 20161122

Add: location—Boston

Add: subject of image (abbreviate)—grtbay (Great Bay)

Add: unique numbers (3 digits is enough for this particular trip)—001, 002, etc.

Add: filetype extension—.jpg, .tiff, etc.

Ex: 20161122_boston_grtbay_001.jpg

On a Mac, you can rename files in batch quickly (see figure 5.1). Select the images you want to rename, right-click, and select **Rename # items**. At the next step, you can choose to customize your file name and select where you want the numbering to begin.

On a Windows computer, you can select the items you want to rename, right-click, and simply type in the text you want to start with (see figure 5.2, p. 26).

Windows does not allow for much customization in numbering with its batch renaming feature.

If you want more customization of your files when renaming in batch, consider using a file renamer. I usually recommend *Advanced Renamer*. It is open source and allows you to make your batch renaming as granular as you want.

Advanced Renamer

<https://www.advancedrenamer.com>

HOW DO WE STORE INFORMATION ABOUT FILES?

The short answer to how we store information about files is metadata! Introducing library patrons to metadata is a little bit like showing a peek behind the curtain of a good magic trick. Because we can't add every single piece of information to a file name, we have to look to other ways of storing data about our digital files.

Metadata is a set of data that describes and gives information about other data. One good way to illustrate how metadata works is to talk about your library collection's catalog. Every item at the library has (hopefully) a digital catalog entry. In this entry, information is stored about the author, publisher, and publication date. We also generally tag catalog entries with things like subject headings and a description. Digital files also have cards of information attached to them. The trick is knowing where to look and how to add information.

To see what information is attached to your digital file, right-click on the image you want to look into. On a Windows computer, you will see **Properties** (see figure 5.3, p. 26). On a Mac computer, you will see **Get Info** (see figure 5.4, p. 27).

When you get into the properties (see figures 5.5 and 5.6, p. 28), you can see some information about your digital file. On a photo you can see the following information:

- date of creation
- device information—camera model, scanner model, and so on
- location—usually stored as GPS coordinates
- dimensions
- authors

Once you are in the **Properties** (Windows) or **Info** (Mac), you can add tags and comments to your file. If you are dealing with family photographs, you can add a tag for each person in the photograph. You can tag keywords like *funeral*, *reunion*, or *lake house*.

Once that information is saved in the files, you can

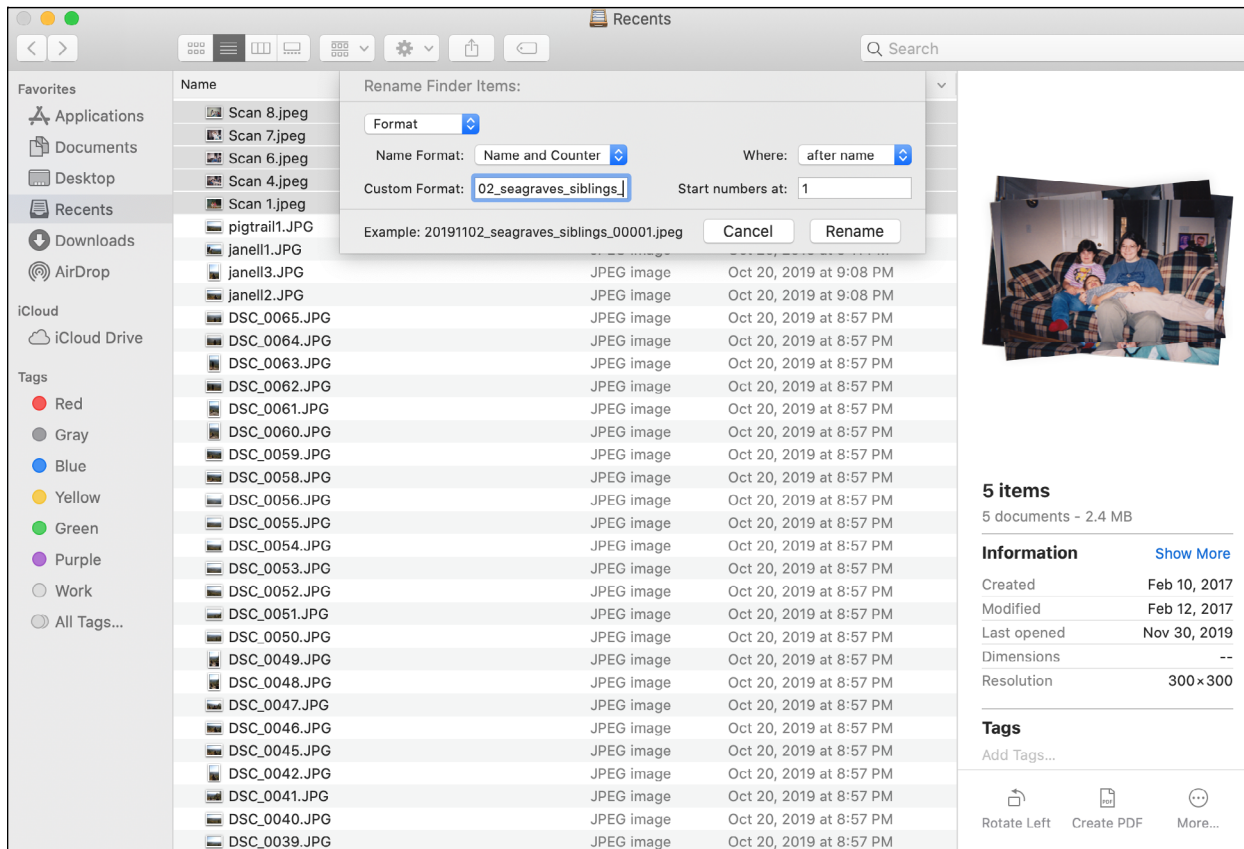


Figure 5.1
A screenshot of the options you get in renaming Finder items on a Mac computer

search your computer by the tags you create. This process may seem like a lot of work to library patrons. But if they take this very important step with their digital files, they can save themselves a lot of work in the future. This is also a good way to share information with future family archivists. It's a bit different from the old style of adding a caption to the back of the photograph and much more effective in the long run.

HOW DO WE ORGANIZE FILES?

There is no perfect answer to how we organize files, and most people have elaborate file organization that makes sense only to them. But I have found that if you tag and name your files properly, you don't need to organize them! The search function will get you all the places you want to go.

Digitization at the Library

Earlier I stated that obsolescence is the most frustrating

factor in potential loss of your files. Digitization can be a frustrating and time-consuming project for many library users (and staff).

There is a growing movement to “bring preservation to the people” (Memory Lab Network 2019). Public libraries are at the forefront of that movement. A public library is a democratic space that provides vital resources for its patrons. It is the great equalizer in a community.

Digitization Equipment

At my library, we have a digitization lab where users can come use our equipment to digitize their analog memories. We have three scanners (capable of also scanning negatives and slides), a large-format scanner, a VHS converter, cassette converter, 8 mm and Super8 reel converter, LP converter, floppy disk drive, and a VHS-C adapter. This equipment was not cheap. However, providing it at the library and making it a shared resource for my county's residents makes it accessible for anyone who wants to use it.

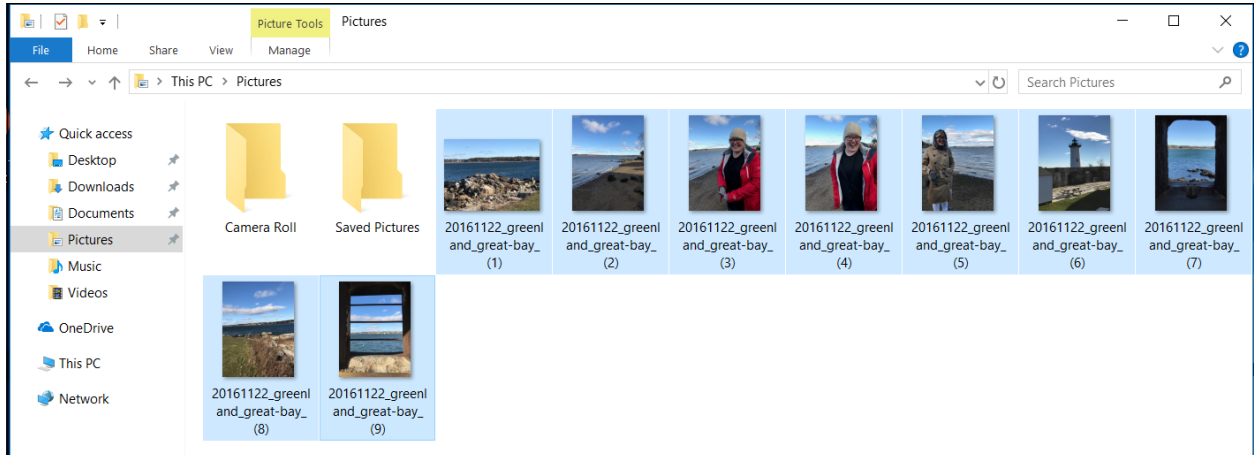


Figure 5.2
A screenshot of items selected and renamed on a Windows computer

If you are interested in providing publicly accessible digitization equipment at your library, check out some spaces that already have a setup:

- Memory Lab at DC Public Library
- Digital Literacy Lab at Tulsa City-County Library
- San José Public Library

Memory Lab, DC Public Library
<https://www.dclibrary.org/labs/memorylab>

Digital Literacy Lab, Tulsa City-County Library
<https://www.tulsalibrary.org/programs-and-services/aep-foundation-digital-literacy-lab>

San José Public Library
<https://www.sjpl.org/blog/retro-tech-analog-past-digital-future>

For an extensive list of digitization labs in North America, check out the Memory Lab Network. The Memory Lab Network site has great resources for learning more about setting up a digitization lab. Some libraries offer more mobile digitization options on carts or even just add equipment to existing computers. A separate space is not necessary to start providing access to digitization equipment.

Memory Lab Network
<http://libguides.dclibrary.org/memorylab/resources/digi-stations>

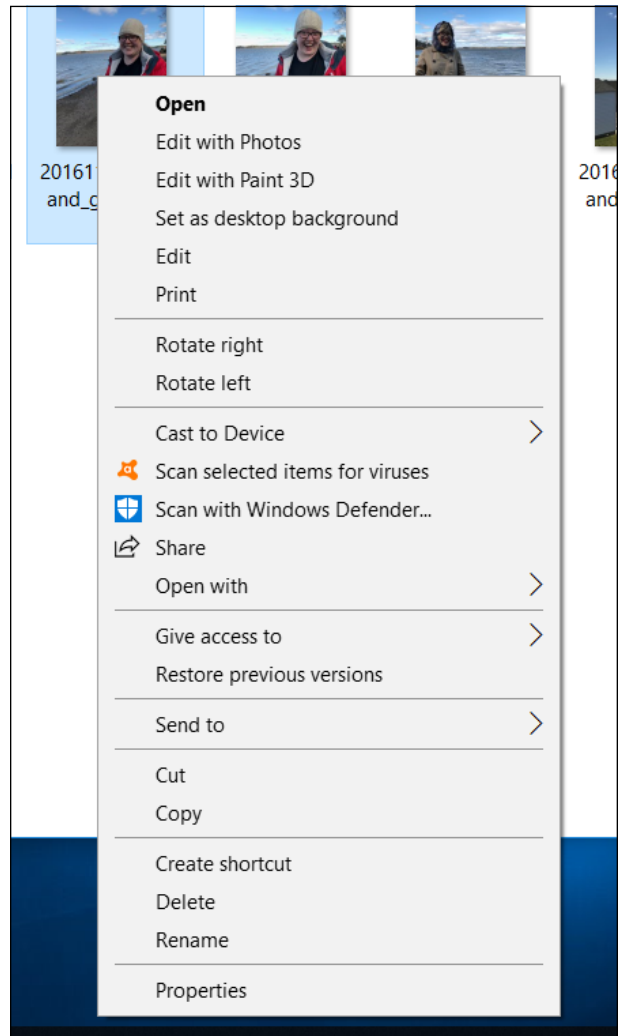


Figure 5.3
A screenshot of file options on a Windows computer

Digitization Standards

When talking about best practices in digitization with library users, it is important to understand your patrons' motivations and available resources. They often do not have the time, patience, and available storage space to adhere to professional digitization standards.

If you are looking for information on resolution and digitization standards, check out the "Guidelines for Electronic Preservation of Visual Materials" by the Library of Congress.

Guidelines for Electronic Preservation of Visual Materials

<https://www.loc.gov/preservation/resources/rt/guide/index.html>

Tips for Getting Started

The hardest part of any digitization project is getting started. Here are a few steps your library patrons can take that will set them up for success.

- *Evaluate.* You don't need to keep everything. Sift through your items and figure out what is worth keeping.
- *Break it down.* Starting a large-scale personal project can be very daunting. Breaking up a digitization project into smaller pieces can make it much less intimidating.
- *Test it out.* Test out your equipment and get familiar with the settings before you work on a big stack of photos or long video. No one likes figuring out a great trick two hours into a project.
- *Create a workflow.* Everyone has different methods for working on personal digitization projects. The one that works best for me is to digitize a stack of items, transfer the files to my own computer, rename the files, and then start adding metadata to one item at a time. I usually digitize about fifty to one hundred photos at a time.
- *Don't get frustrated!* Even though there are entire degree programs, journals, and textbooks devoted to digital archiving, you don't have to be an expert to do it. Just figure out what works best for you.

Further Learning Resources

There are two books that have been valuable resources for me when developing best practices and instruction:

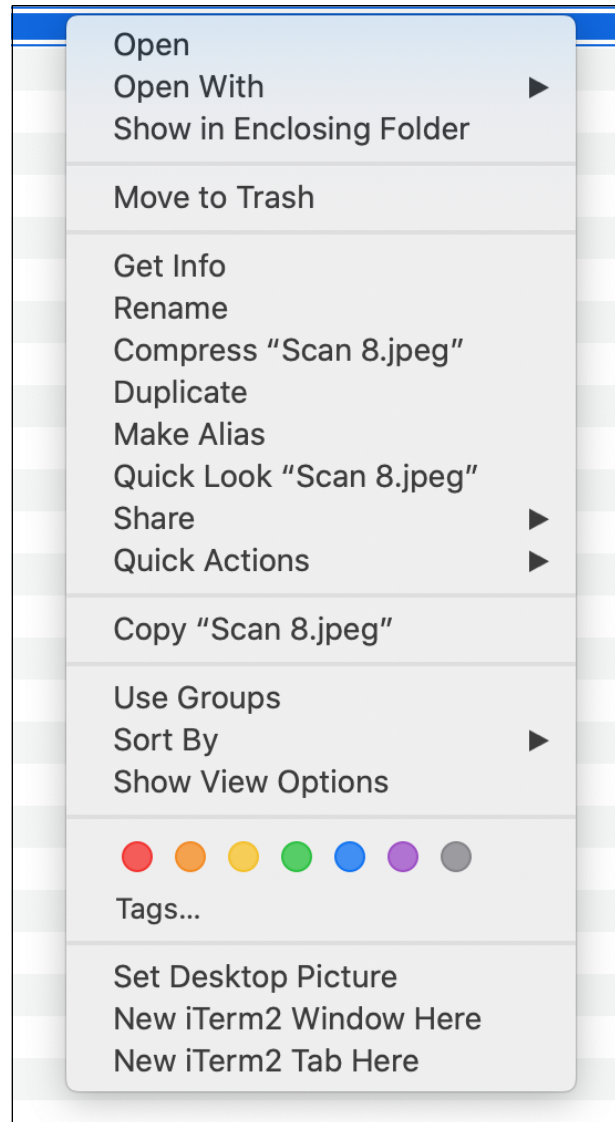


Figure 5.4

A screenshot of file options on a Mac computer

- *Managing the Digital You: Where and How You Keep and Organize Your Digital Life*, by Melody Condron (Lanham, MD: Rowman and Littlefield, 2017), is a book we keep on hand at the library. The writing is accessible and good for library users who are new to personal digital archiving.
- *The Complete Guide to Personal Digital Archiving*, edited by Brianna H. Marshall (Chicago: ALA Editions, 2018), is a thorough look into digital preservation and archiving. It has been a good tool for me in developing further instruction for library patrons.

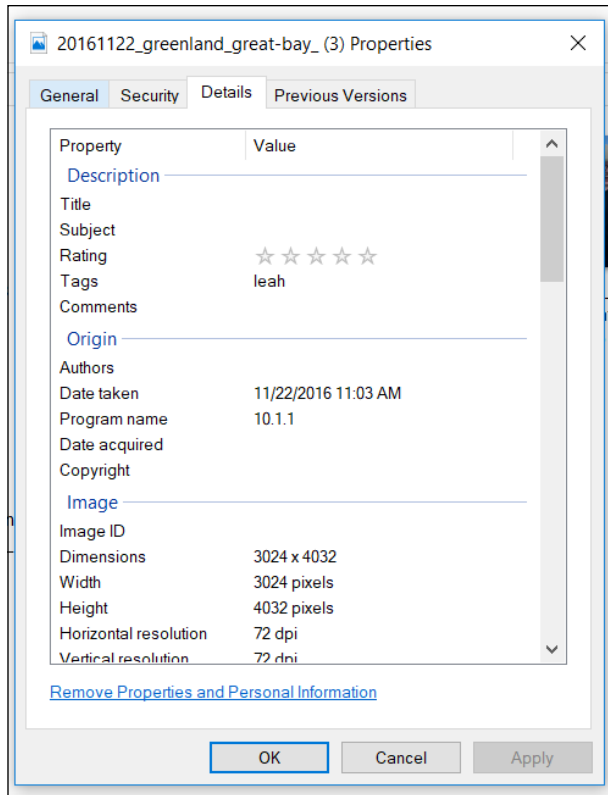


Figure 5.5
A screenshot of the Properties on a Windows computer

References

- Condron, Melody. 2017. *Managing the Digital You: Where and How to Keep and Organize Your Digital Life*. Lanham, MD: Rowman and Littlefield.
- Memory Lab Network. 2019. Homepage. Accessed January 9, 2020. <https://memorylabnetwork.github.io/index.html>.
- Stanley, Angela, and Natalie Wright. 2017. "Saving Stuff: Digital Preservation for Family Historians." *Computers in Libraries* 37, no. 3 (April): 19–22.

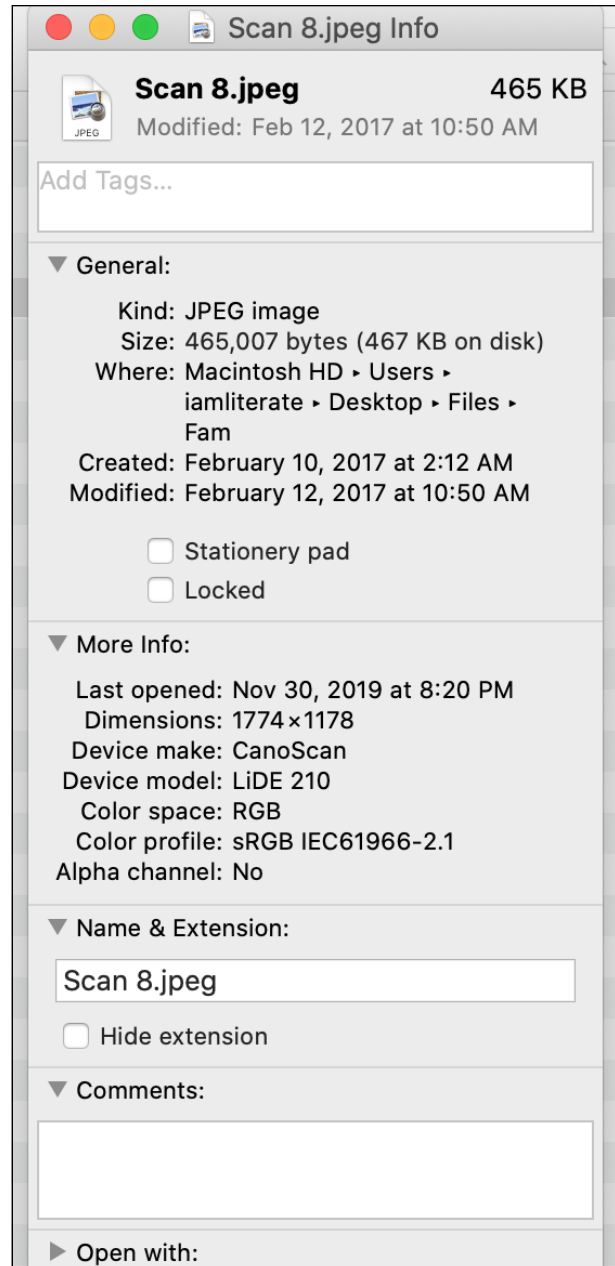


Figure 5.6
A screenshot of Info on a Mac computer