COMPUTER o R FREESTORAGE! E By Michael Blackledge

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These are exciting times to be an aspiring genealogy re-searcher with a personal computer. Our previous **Quarterly** column "FREE SOFTWARE!" outlined methods whereby genealogists could obtain for free, or nearly free, software to assist with or manage their efforts in research, information compilation, and family history publishing. However, genealogists have numerous computer information concerns beyond obtaining the software to drive our computers.

Backing up or saving our work is a discipline that we have been nagged about for years – even before computers. With genealogy research "backing up" our work could have a somewhat different connotation, along the lines of offense more than defense, viz: to store our captured research (articles, old photos, scans of heirlooms and documents) and make this work available to others. This article will explore a few of the myriad opportunities to store our valuable data where it will be captured 'forever' – and can, at our discretion, also be shared with fellow researchers or family.

Google power: We could spend several columns on what Google can do for genealogists (we already examined *Gmail for Genealogists* back in February 2012, and have mentioned **Google Books** in several contexts), but in this article we're talking storage and will only look at **Photos** and **Drive**.

Alphabet, the parent company of Google and several former Google Subsidiaries, has become one of the true behemoth companies of our lifetime, involved deeply in several industries, including technology, life sciences, investment capital, and research. A 2014 (just prior to Alphabet formation in 2015) Forbes article noted: "A century ago it was GM. Then IBM. Then Microsoft. Then GE. And now Google." So much more than just a search engine, the Google empire is fueled by an amazing revenue machine. A New Yorker article, claiming Google as today's GM, states: "It's hard not to conclude that [Google] has it all figured out; as a glance at a quarterly report suggests, there are billions upon billions of reasons to think so." Today, Google is building and testing driverless cars and trucks and has a lawsuit against Uber for stealing some of Google's technology. My unsolicited advice is: during our lifetime, don't bet against Google.

Photo storage: There are numerous photo storage sites that not only provide free storage but also allow friends and family to share and print or download copies. A few even assist in making books of photos to share. *Tomsguide.com* suggests that a good photo storage site should provide sufficient storage space to keep all of your photos in one place at low cost (I suggest "free"); that your photos should be preserved in their 'original' resolution (note that Facebook will downsize your photos that you upload in many cases); that it should be easy to upload and later to find those photos by date or by some tag method; and that it is easy to share those photos

as you wish. Sites that meet these criteria include Flickr, 500 Pixels, Facebook, Photobucket, Canon Irista, Smugmug, Apple's iCloud, Dropbox, Amazon Prime Photos, My Portfolio (Adobe), and Google Photos.

Google Photos: *Tomsguide.com* reminds us that Google's own photo sharing service was primarily designed as a way to back up photos and video taken on Smartphones, but it has evolved into a decent photo editing and sharing service. Once you have uploaded a photo, you can edit it, cropping and tweaking colors. Once the editing is done, you can create albums of photos and video that can be shared publicly, or with specific Google users.

Google Photos offers unlimited space and uploads, but with a small caveat: photos can only be stored at a maximum resolution of 16 megapixels or video at 1080p video. If you want to store bigger images or video, you'll need to pay for space on Google Drive, which starts at \$1.99 a month for 100GB.

It is important to realize the connection, namely that Google Photos uses Google Drive (Google's version of OneDrive or Dropbox) as the storage area to store your photos and videos. If you run out of storage: 1) Google Photos will back up your items at "high" quality (instead of your original full resolution) and 2) You won't be able to save more files to Google Drive



Of course, Google will offer to sell you (OK, rent) more space. For most of us, we can figure out a way to stay with the free storage available, either here or elsewhere. My son David adds: "The good news is I finally discovered Google Photos with unlimited uploads mode and it uses Picasa technology, so I've been backing up / uploading every picture I can find from other back-ups and getting addicted again to organizing, image editing, identifying the faces it recognizes, etc. [Google Photos] handles videos that way, too, so I finally have a reasonable way to store those and decide later if I want to share or put in YouTube. It doesn't take up any of my Google Drive space this way, so I'll soon be sharing some of this stuff. The only

downside is they limit the resolution which would only matter if you are a professional."

"The bad news is that most of my pictures and vide-os have incorrect date information from dead batteries and likely my own mistakes entering the date in the camera. At least Google Photos lets me edit that, but it's terribly tedious."

Internet Archive: One would think "Internet Archive" would be some topic for general discussion, and truthfully, this Computer Corner article originally had that title. However, "Internet Archive" is actually a 200 employee non-profit company out of San Francisco founded in May 1996 with the most audacious mission statement I've ever come across: "*Universal access to all knowledge*." Wow. Who would dare claim that, or even want to work toward that goal! Reading between the lines, you as a user must realize that if you store something on **archive.org** (the working website of Inter-net Archive), you are placing it in this 'universal access' realm of knowledge – with few exceptions, it will be available to everyone. When you create your (free) account and start uploading, you're asserting that what you upload is public domain or what they call "creative commons license." Anybody can search and find it, and download or do whatever they want with it. There are some exceptions to that...they have some streaming-only content (you can't download it or keep a copy) like their Grateful Dead concerts and old video games. Also they have a searchable index to all TV news broadcasts, but you can only watch five minute segments at a time (based on your search of the transcript). These limitations are the resolution from some copyright lawsuits over the years. As you might guess, "universal access to all knowledge" is a work-in-progress. But you can use it and benefit from it today. Yes, for free.

Internet Archive is a 501(c)(3) non-profit library of millions of free books, movies, software, music, websites, and more. You want old 78 rpm records – 50,000 are digitized there and you can play them 'instantly.'

You want old movies – they are already there and you can watch them now – no commercials. You want a place to store any of your genealogy research – here it is. *Unlimited*. The first thing to do is to visit archive.org and create your own account. It's free, of course, and about all you need is to enter an email address for your login ID and create a password. That's it. Then you are cleared to start uploading any file you wish – and it will be stored 'forever.'

Way-Back Machine: A few of you readers are ... ah ... *mature* enough to remember the animated TV cartoon, *The Rocky and Bullwinkle Show*. One of the regular features of the show was Mr. Peabody and Sherman using the "WABAC machine" (pronounced way-back) for time travel to illustrate some excitement in human history. Well, The Way-Back Machine is now memorialized as an initiative of the Internet Archive to digitize the World Wide Web. The site employs "bots" (digital web searching robots) to roam the Internet and store web pages. In this way, one can journey back in time and see a particular web page as it looked in, say, April of 2010. Thus, Internet sites and other cultural artifacts are captured in digital form; currently they have captured 300 billion web pages. You can enter the URL of one of your favorite web pages in the search engine for the Way-Back Machine, and give a date where you would like to see that page. Other projects include Open Library and *archive-it.org*.

Open Library: Open Library is an Internet Archive project begun in 2006 with the mission to create one web page for every book ever published. Yes, another audacious mission statement, but this reminds us that Internet Archive works in web pages. When you upload a document or an image of your ancestor or an audio file, what-ever, archive.org will make that item into a web page. In fact, whenever you see the term 'item' in Internet Archive, that equates to a web page. The good news here is that any item in Internet Archive has a simple URL attached to it for reference and downloading/viewing/whatever. We'll look at some examples below.

Archive-it.org: There is no true user's manual for *archive.org* and some universities, libraries, and companies would rather pay for an archiving service. First deployed in 2006, Archive-It is a subscription web archiving service from the Internet Archive non-profit that helps organizations to harvest, build, and preserve collections of digital content. Through a user friendly web application, Archive-It partners can collect, catalog, and manage their collections of archived content with 24/7 access and full text search available for their use as well as their patrons. Content is hosted and stored at the Inter-net Archive data centers. This is not a free service, and this article will concentrate on the standard (free) *archive.org*.

On-Line Books: So why would a genealogist want to use Internet Archive, found at archive.org? One big reason is the on-line book capability. Thousands of 'standard' books are out there, including books you may want for your research. However, any PDF file uploaded to *archive.org* is quickly converted into an on-line book with full text search capability. Talk about simplifying your genealogy publishing cycle! You really need to try this to experience how cool it really is, but let me offer a few examples that are already out there.

School Yearbooks: Here's an example you can eas-ily try: The US Naval Academy yearbook is titled

"Lucky Bag." They 'only' go back to 1894 but all of them are available on-line at *archive.org* – and play as a book! Try a search (Google or other search engine) for: **Lucky Bag 1920**. One of your top hits will be an *archive.org* URL. Click on it, and there you get the full 1920 yearbook. Click on the cover, and the 'book' opens. Click again to start paging through the book. See the full-screen icon? Click on that to allow the in-book text search. Try a search for your favorite surname: Blackledge. The beau-ty of this searchable on-line book is that a) it will very quickly tell you if that term is not in the book, and b) it



will 'drop a balloon' (search success icon) along the baseline of the page for every hit. It gets better: by slid-ing your mouse over any balloon, the context of that 'hit' on Blackledge will show up, thus allowing you to decide if you want to click on that balloon. Doing so flips open the book to that page, and you can read the full article. Is this cool or what!

Here's the exciting follow-up to the above: If you upload *any* PDF file, then within an hour, archive.org will do its magic and create this same flippable, searchable book out of your file. You can thus easily create your own genealogy/family history book, with full search capability for your family or fellow researchers! One thing to know: the "book editor" bot will be looking for some way to title your book; it is smart enough to look for a title page, which it recognizes by the larger font on some words on a page near the front. Thus, give your file a title page, upload what you've got and let's see what you get back! As alluded to earlier, you will also receive a 'reasonably sized' URL that you can share; for example, that USNA 1920 Lucky Bag yearbook has the 'direct' web address of *https://archive.org/details/luckybag1920unse* - if you would like to see the 1894 yearbook, just substitute 1894 for 1920 in that URL. If you then click on the 'full screen' icon a different view-ing URL takes over – but you're in! And here is one more great feature: your newly created 'book' is down-loadable in multiple formats – not just PDF, but different formats, including Kindle-compatible.

Pseudo User's Manual: There is no formal (or "for Dummies") user's manual for *archive.org* that I have found; however, there is *blog.archive.org* that has help-ful folks providing good information. I have found entries by the contributor/employee Alexis Rossi to be quite helpful, and searching for her contributions provides some of the best. Here are a few gems that I have gleaned to date – you may not be into this but I found these to assist my understanding of this site:

How Archive.org items are structured

Posted on March 31, 2011, by Alexis Rossi

What is an item?

An item is a logical "thing" that we present on one web page on archive.org. An item may be one video file along with scans of the DVD cover, one book, one audio file, or a set of audio files that represent a CD etc. How do you know whether your files should be in one item or separate items? You get one metadata file per item. If the same metadata describes ALL of the files (like a CD), then that's one item. If the files are too different to have the same metadata (title, creator, description, etc.), they should be in different items.

How Items Are Structured

All archive.org items have this format URL: *http://archive.org/details/[identifier]*, where [identifier] is unique within our system. Example: For this item *http://www.archive.org/details/popeye_taxi-turvey* the identifier is **popeye_taxi-turvey**.

An item is just a directory or folder of files that includes the originally uploaded content file(s) – audio, video, text, etc. – along with any derivative files we create from the originals and the metadata that describes the item. To see all files in an item, click the HTTP link in the upper left box on the item page. One thing to note: Many "display" characteristics on archive.org, among other things, work better if your item's identifier matches your file name. So if you're uploading a file called popeye_taxi-turvey.mpg, it's best to use the identifier popeye_taxi-turvey (just remove the file extension). If you're using the upload button on archive.org, put your desired identifier in the Title field of the upload form. We turn that into the identifier automatically, and then after upload you can go back into the item and change the title to something more readable.

Archival URLs

An item "details" page will always be available at http://archive.org/details/[identifier]

The item directory is always available at http://archive.org/download/[identifier]

A particular file can always be downloaded from http://archive.org/download/[identifier]/ [filename]

NOTE: Archive.org currently has more than 8,000 collections of items. Here is an example:

http://www.archive.org/details/harvardclassics. If you are interested in having a collection on archive.org, you can contact us for further information at info at archive dot org.

How does archive.org create a title page in the flip book?

Our system attempts to detect the title page of a book. The basic criteria is dependent on OCR. It will try to choose the first page with large font size that best matches the title you used for the item page. If that fails it is somewhat random.

Here is something I will have to try - a flip book for photos.

How do I make a flip book out of loose images?

To make a flip book you need to upload a zip that contains the files. Here's how:

- 1. Use only jpg, jpeg, jp2, tif, tiff, png, gif or bmp files. Any combination of them is acceptable.
- 2. Name your files sequentially. It is best to use the identifier in the name. For example:

000yourfilename.jpg;

001yourfilename.jpg;

002yourfilename.jpg; and so on

- 3. Create a zip of the files and name that zip file using the page identifier e.g. yourfilename_images.zip.
- 4. Upload the zip file. Be sure to specify a language to help OCR. The system should do the rest.

<u>Collections:</u> You will see the term 'collections' used frequently in *archive.org* – that is not a set of files that you or I might put together. A collection is an archive.org set of at least 50 items (web pages), something like the Harvard Classics, or the Grateful Dead music collection.

Summary: Many of us are concerned that a hard disk crash could result in the loss of years of genealogical research. One of the best ways to allay these fears is to take the offensive: capture some of your hard-won images and research reports on-line, in cloud-based storage systems such as DropBox, OneDrive, Google Photos, and Archive.org. These resources are free and pro-vide some security in the sense of redundancy. *Archive.org* provides 'unlimited' storage for uploading your research documents, images, and PDF files. Any uploaded PDF file will be transformed by archive.org into a flip-page on-line book, and a simplified URL will be provided that can be shared with friends and family – they can read it on-line, or download it in one of many file formats. Try creating your own book from your genealogy research, you can produce it for free! Link your result on the AGS Facebook page for others to view.

References and Sources

Sample archive-made book; https://archive.org/details/USNA63Stories_201704 https://blog.archive.org/2015/10/18/a-treasure-trove-of-adventure-and-uploading/ https://en.wikipedia.org/wiki/Internet_Archive