

Personal Digital Archiving:
An Annotated Bibliography for
Librarians and Patrons

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FOR THE LIBRARIAN & LIBRARY

Hello public librarian! Librarians can agree that part of our profession focuses on the preservation and access of materials. Everyday decisions are made on best practices for saving objects for the “long haul,” while ensuring that they can also be accessed by patrons in the future. This is exceptionally important with digital materials, which face unique challenges. However, it is not only professional librarians interested in digitally preserving objects. Our patrons are also intrigued with keeping their personal information and memories preserved and accessible. The concept of personal digital archiving (PDA) is a growing one, and one which our patrons are more and more likely to come to us for aid.

This annotated reading list has been designed to introduce concepts behind PDA, provide practical advice for servicing patrons interested in PDA, and explore ways to grow professionally with it too. This guide has been organized to flow from broad concepts to specialized ideas. It also has headings with subheadings to further divide the list to make it easier to scan for individual articles of interest.

There are five main categories to this list:

1. **PERSONAL ARCHIVING: OVERVIEWS AND INTRODUCTORY PIECES** (an introduction to PDA and resources that cover a wide spectrum of issues relating to it)
2. **ADDITIONAL TOOLS AND TIPS FOR SPECIFIC ARCHIVING NEEDS** (specific tools, content, and software to recommend for specific needs)
3. **FOCUS ON DEVELOPING COMMUNITY ENGAGEMENT** (how to implement the previous two sections’ knowledge and dispense it to patrons)
4. **HOW PERSONAL ARCHIVING AND DIGITAL PRESERVATION FITS INTO THE ROLE OF THE LIBRARIAN** (why this is an important field to be knowledgeable in and how everything discussed prior for PDA can elicit a deeper role for a librarian within their community)
5. **PROFESSIONAL DEVELOPMENT** (resources for librarians to professionally grow with PDA)

Within some sections, when possible, the articles attempt to flow from broad to specific as well. This list has been specially developed with the librarian in mind, and it serves as a companion piece to *For the Patron*. A librarian should be versed in both so that they not only understand both the theories of PDA and how to disperse that knowledge to patrons, but also feel confident with the “nitty-gritty,” how-to/informative resources recommended for patrons.

These personal resources are highly valuable to our patrons, and it is worthwhile that we are able to help our patrons preserve and access them for years to come.

PERSONAL ARCHIVING: OVERVIEWS AND INTRODUCTORY PIECES

AN INTRODUCTION

Zastrow, Jan. "PIM 101: Personal Information Management." *Information Today, Inc.*

The Digital Archivist, March 2014. Web. 08 Nov. 2015.

<<http://www.infotoday.com/cilmag/mar14/Zastrow--PIM-101--Personal-Information-Management.shtml>>.

Zastrow's article is the perfect short and concise introduction to personal archiving theory for public library professionals. Its main purpose is to present an overview of the management of personal information for individual use, as opposed to organizational or record keeping "systems." That is, the distinction between "personal *information management*, not *personal information* management (such as Social Security numbers, personnel records, or medical information about others)."

She addresses the issue that the general public (our library patrons) will likely not have at hand the same resources and tools that an archivist has; therefore, patrons need a framework from which to begin the work of personal information management. The article discusses universal issues that any individual embarking on personal archiving could relate to, including: obsolescence, lack of organization, and documenting multiple social media platforms. Further, the article also contains a "What do We Tell Our Patrons?" section which offers solid documentation for how to answer a patron's likely initial questions. It also includes a short list of additional resources.

Zastrow is a respected professional in the field. She holds an MLIS degree, and she is a senior information professional knowledge manager, certified archivist, and librarian based in Washington, D.C.

BROAD IDEAS, THEORIES, AND OVERVIEWS OF PRESERVATION NEEDS

Library of Congress. "Perspectives on Personal Digital Archiving: National Digital

Information Infrastructure and Preservation Program." *Digitalpreservation.gov*.

Library of Congress, 18 March 2013. Web. 06 Nov. 2015.

<http://www.digitalpreservation.gov/documents/ebookpdf_march18.pdf>.

For the librarian interested in a resource that has a little bit of everything to get started with digital preservation, the Library of Congress has compiled an extensive listing of blog posts for its Digital Preservation blog. As stated in the introduction, the LOC's "...approach has always been to provide what we think of as high-level, basic guidance

that gives the non-specialist some ideas for getting started. We find that most people have practically no experience with or understanding of practices to manage digital content. Their biggest need is for an accessible introduction and some simple first steps."

The compilation consists of articles broken down into three main categories:

- discussions relating to the basic guidelines presented on the "Preserving Your Digital Memories" section of the <http://www.digitalpreservation.gov/> website
- real world examples of personal digital preservation issues
- description of the LOC outreach efforts to promote personal digital archiving

This is a comprehensive guide not only for the public librarian, but could also be recommended for patrons. This should be considered a toolkit for teaching patrons, as individual articles can be copied, printed, and distributed for educational use. Included within each piece there are hypertext links back to the original blog posts for any pictures and graphics, and also links to other potential resources. This serves as a well-rounded piece that explores many of the basics.

The authors of the articles found within this resource are all professionals in the field, including archivists and digital media project managers.

Marshall, Catherine C. "Rethinking Personal Digital Archiving, Part I: Four Challenges from the Field." *D-Lib Magazine*. 14.3/4, ISSN 1082-9873. D-Lib Magazine, March/April 2008. Web. 11 Nov. 2015.
<<http://www.dlib.org/dlib/march08/marshall/03marshall-pt1.html>>.

and

Marshall, Catherine C. "Rethinking Personal Digital Archiving, Part 2: Implications for Services, Applications, and Institutions." *D-Lib Magazine*. 14.3/4, ISSN 1082 9873. D-Lib Magazine, March/April 2008. Web. 11 Nov. 2015.
<<http://www.dlib.org/dlib/march08/marshall/03marshall-pt2.html>>.

Librarians interested in a deeper, tech-focused look at personal archiving needs might find these articles interesting as they take an in-depth look at multiple methods and facets of archiving from a more technologically driven narrative. Also, Marshall expands on the idea of personal digital archiving by discussing how it may be currently practiced by consumers today.

Part I introduces common computer misconceptions that people have, as well as addresses users' faulty reliance on cloud storage or personal hard drives. Marshall

acknowledges that patrons need to be made aware of the concepts of stewardship and curation in the long term, not just "where should I store my files right now?" Marshall explores a set of key issues that have developed over time by referencing studies that she herself conducted. This piece breaks open a narrow view of personal digital archiving, and it delves into multiple considerations of storage over the long term, including personal access to distributed storage.

Part II introduces the reader to more complex ideas concerning personal digital archiving, including notions of provenance, assessing value, and disposition. An extensive discussion of long-term-maintenance and access follows. These parts together lay the groundwork for any librarian interested in teaching patrons advanced concepts of personal digital archiving.

As a senior researcher at Microsoft, Marshall has been a leading voice in the professional digital librarianship field. She has published multiple articles on the subject, as well as delivered speeches, presentations, and keynote addresses at a variety of venues.

ADDITIONAL TOOLS AND TIPS FOR SPECIFIC ARCHIVING NEEDS

EMAIL AND THE CLOUD

Prom, Christopher. "E-Mail Preservation Options." *MAC Newsletter* 39.3 (2012): 18-19.

Library & Information Science Source. Web. 15 Nov. 2015.

Preservation of personal information can be more than what a person actively produces and wishes to save. Information is created every day when an email account is used. Data is sent both back and forth, often containing personal information. This article serves as an easy-to-use aid for selecting an email preservation plan that works best with an individual's needs and/or wants.

The article first explores why email preservation is of importance—using a story of a woman who would have lost years worth of email archives to a hacker had it not been for a connection in Google that was able to restore her emails. The article then goes on to explain a “whole account approach” and a “whole system approach” to email preservation. Within each approach, suggestions of possible programs to utilize are explained.

This piece provides a straightforward guide for email preservation, made even more straightforward by having specific programs to consider for use listed. Knowing methods for email preservation, as well as a program or two to suggest to patrons interested in email preservation aids, will be helpful knowledge to pass along.

Chris Prom is an Assistant University Archivist and an Associate Professor of Library Administration at the University of Illinois at Urbana-Champaign. He has been the

recipient of multiple awards and distinctions, and has published multiple works in the American Archivist and other scholarly journals.

Prince, J. Dale. "Introduction To Cloud Computing." *Journal Of Electronic Resources In Medical Libraries* 8.4 (2011): 449-458. *Library & Information Science Source*.

Web. 17 Nov. 2015.

Prince's article offers a more detailed look into what cloud computing is, its benefits, and its challenges (beyond the obvious of security). Although most of Prince's publications are geared towards the medical library community, this particular piece is a quick, easy to digest read that does not get lost in tech-heavy explanation.

The article will inform readers what the cloud is, and lists multiple examples of services/functions considered cloud computing. It defines and differentiates between Software-as-a-Service and Infrastructure-as-a-Service cloud computing. It also has a section devoted to discussing a handful of benefits of using the cloud, as well as one discussing the clouds shortcomings. Both of these sections are expanded beyond the standard "the cloud has security issues" and "the cloud allows me to cut down on on-site storage." For instance, the article examines a possible cloud negative of how the shutting down of a cloud-based service could cause the potential loss of content saved on that website. The article concludes by discussing the cloud in medical libraries, which is professionally interesting, but not necessary for patrons.

As more patrons create a digital footprint and utilize online resources that are part of the cloud for preservation, being able to explain what it is, and some pros and cons, will be helpful for any librarian. Understanding the risks inherent to the cloud, and being able to pass that on to patrons, will help make for a well-rounded preservation plan—it becomes obvious how a patron should not "put all their eggs in one basket" with their preservation plan.

J. Dale Prince is the Executive Director for the National Network of Libraries of Medicine, SE/A Region.

SPECIFIC TOOLS AND MATERIALS INFORMATION

Hawkins, Donald T. "Personal Archiving: A Guide to Software and Tools." *Computers in Libraries* 33.9 (2013): 30-2. *ProQuest*. Web. 27 Nov. 2015.

This piece is for the librarian that wants a short, bullet-point list of various software and tools which they can then recommend to patrons interested in personal archiving. This offers no discussion of theory, just direct listings of software and tools that a librarian might find helpful. For these reasons, this piece can be a valuable resource.

The article explicitly states that it is directed towards librarians looking for software and tools to recommend to their patrons who are coming in, asking about tips for personal digital archiving. The article is a review of various software and tools geared towards digital preservation. Software and tools for photos, note collection, email archiving, and home movies and videos are discussed.

While understanding the theory and “big-picture” behind personal digital archiving is necessary background information for a librarian helping a patron, also having knowledge of the “nuts and bolts” of how to start is necessary too. This article fulfills that role and offers a variety of suggestions to meet a diverse level of need.

Hawkins “is a freelance author, editor, and conference blogger for Information Today, Inc. (ITI) and The Charleston Group, LLCone.” A Doctorate from the University of California-Berkeley, he “pioneered the introduction of online retrieval in the AT&T Bell Laboratories Library Network.”

Teper, Jennifer Hain, Ryan Edge, Amanda Eisemann, and Alex Dolski. *PSPA*:

Preservation Self-Assessment Program. University of Illinois at Urbana-

Champaign, n.d. Web. 30 Nov. 2015.

<<https://psap.library.illinois.edu/>>.

The PSPA, while geared towards “library special collections, archives, museums, and historical societies,” could be used by librarians seeking information for specific material types to help patrons with their personal preservation needs.

The website contains information for analog items (with categories for Audiovisual Media, Paper & Books, Photo & Image Material, and Supplementary). Each category is divided into subcategories with specific materials then listed. Each entry includes brief content about the item’s history, description, composition, deterioration, risk level, how to preserve it, and more.

This article was included because parts of digital preservation involve analog objects—such as making a back-up disc copy of photographs. Having the resource available to help patrons understand how to properly store and preserve their back-ups of personal objects will help them become better, well-rounded personal archivists.

“The PSAP was developed by the University of Illinois Libraries through the generous support of the Institute of Museum and Library Services.”

LeFurgy, Bill. “Preserving Your Personal Digital Photographs.” *American Library*

Association. Association for Library Collections & Technical Services, 26 Apr.

2012. Web. 05 Dec. 2015.

<<http://www.ala.org/alcts/confevents/upcoming/webinar/pres/042612>>.

This webinar is specifically directed to the librarian who wants to help patrons preserve their digital photographs. Material covered includes digital photo formats and metadata, digital camera settings, and file organization and inventory. There are links to this free webinar available at the ALCTS page. Included are a YouTube persistent link, a downloadable .wmv file, and a PDF of slides.

The webinar presenter is Bill LeFurgy, the Digital Initiatives Manager for the National Digital Information Infrastructure and Preservation Program at the Library of Congress.

FOCUS ON DEVELOPING COMMUNITY ENGAGEMENT

Brown, Nathan. "Helping Members of the Community Manage Their Digital Lives:

Developing a Personal Digital Archiving Workshop." *D-Lib Magazine The Magazine of Digital Library Research*. 21.5/6. D-Lib Magazine, May/June 2015.

Web. 06 Nov. 2015.

<<http://www.dlib.org/dlib/may15/brown/05brown.html>>.

Brown's essay gives an overview of developing a personal archiving workshop. This article explores resources and potential methods that could be useful in tailoring a workshop or ongoing service for helping patrons preserve their personal digital files and information.

This article includes a brief literature review that can point librarians to further resources, and it gives a brief history of the emergence of the personal archiving "field." Brown also introduces the idea of "digital estate planning," a logical extension of services if a beginners digital archival workshop is successful.

The article also includes a notes section and list of works cited, ideal for any librarian who is interested in learning more about personal archiving, the digital preservation field, and large scale digital archiving. This resource provides a good overview to begin the process of hosting a personal archiving workshop for patrons.

Nathan Brown is the Digital Projects Librarian at New Mexico State University. He has written extensively on the topics of heritage preservation and digital histories.

Engle, Erin. "Hosting a Personal Digital Archiving Day Event." *American Library*

Association. Association for Library Collections & Technical Services, 20 Mar.

2013. Web. 06 Nov. 2015.

<<http://www.ala.org/alcts/confevents/upcoming/webinar/pres/032013>>.

This is a publicly available webinar that details instructions for how to host a "Personal Archiving Day" event. This is perfect for a librarian who wants to begin with generating interest and creating a bit of buzz about new personal archiving services. The webinar includes practical tips and resources that can easily be shared with patrons.

The webinar is a one hour video that can either be viewed via YouTube or downloaded and played through a media player. An accompanying downloadable power point slide presentation is also available. The video begins with an introductory overview of personal archiving tips, followed by a review of the event day "kit," and finally some guidance and best practices for holding such an event. This resource serves as a good companion to Brown's on how to host a personal archiving workshop for patrons.

Erin Engle is a Digital Archivist with the National Digital Information Infrastructure and Preservation Program (NDIIPP) at the Library of Congress. She is an active participant in the ongoing outreach activities of the LOC and the vast array of resources available from the digital preservation blog, The Signal.

Gittemeier, Oscar, Wendy Hagenmaier, and Michelle Kirk. "Professional Outreach and Advocacy: Host a Personal Digital Archiving Workshop." *Society of Georgia Archivists Preserving the past and present for the future....* Society of Georgia Archivists. Web. 09 Nov. 2015.

<<http://soga.org/involvement/advocacy/professional>>.

This webpage lays out a pre-prepared workshop to teach personal digital archiving to participants. It is a great resource for librarians who want a guide to follow, or for those looking for how to get started. This resource includes additional handouts, hands-on activities for patrons and facilitators, a sample personal archive, and a ready-made presentation for a lecture component.

Compiled by the Society of Georgia Archivists and the Georgia Library Association, this should be considered authoritative source material. The workshop materials are freely available to librarians through a Creative Common's license. Although the website copy encourages sharing, adaptation, and re-use, they do ask that users credit the creators.

This resource also includes suggestions for how to continue a sustainable outreach program in addition to a one-time workshop event, as well as practical tips for creating an 'elevator speech' to engage patrons. This is a carefully thought out and easily adaptable

workshop that anyone, regardless of the library size or patron audience, can use with both success and ease. It also serves as a good companion piece to both Brown's and Engle's resources.

HOW PERSONAL ARCHIVING AND DIGITAL PRESERVATION FITS INTO THE ROLE OF THE LIBRARIAN

Hawkins, Donald T. "Personal Digital Archiving." *Information Today* 31.6 (2014): 16-17. *Business Source Complete*. Web. 09 Nov. 2015.

This is a report from the 2014 Personal Digital Archiving Conference. Hawkins emphasizes the importance of personal archiving to and within a community. He also stresses the role of the public library in educating the public on best practices. This piece is a gentle introduction for librarians who want to consider the long-term goals of a personal archiving initiative at a library.

This piece also introduces librarians to the idea that the issues of personal digital archiving are emerging as a real focus within the information science community, evidenced by references to multiple projects and initiatives in the field.

Hawkins' piece serves as an overview of why it is important for librarians to become knowledgeable of personal digital archiving if they wish to serve patrons successfully. (If librarians are preservationists and beacons of knowledge, and patrons are seeking our help to preserve their own materials, we should be equipped and ready to aid them.)

Hawkins is an "information industry freelance writer," and his report brings to light several theoretical aspects of the concept of teaching personal archiving to the community at large.

Copeland, Andrea J., and Deborah Barreau. "Helping People to Manage and Share Their Digital Information: A Role for Public Libraries." *Library Trends* 59.4 (2011):

637-649. *Project MUSE*. Web. 15 Nov. 2015.

<<https://muse.jhu.edu/>>.

Copeland and Barreau's piece is perfect for the involved librarian with an active patron community (or libraries looking to increase community involvement). This resource takes the role of the public library and librarian another step further. The article first outlines a strategy to engage the community with resources to help them preserve their own digital assets, and it then discusses how to encourage a community to build upon that knowledge to then create its own collective digital repository.

This article proposes a “framework for exchanging knowledge that will address the social, legal, and technical aspects of managing personal, digital information over a lifetime, as well as the cultural, social, and historical benefits of sharing this information.”

This piece builds on concepts introduced by Hawkins for the role of the librarian with regards to personal archiving, and it necessitates the need to incorporate elements from all previously listed resources as well. This is certainly an “advanced goal” to reach with patrons, but it is a logical progression of personal archiving and a wonderful way to share all of that preserved content with the community.

Copeland wrote her doctoral dissertation on the digital preservation practice of public library users, and Barreau is an associate professor in the School of Information and Library Science at the University of North Carolina at Chapel Hill. Together they have made a convincing case for public libraries to fold personal archiving into the fold of preserving cultural heritage.

PROFESSIONAL DEVELOPMENT

ADVICE FROM THE FIELD

Kaye, Joseph ‘Jofish,’ Janet Vertesi, Shari Avery, Allan Dafoe, Shay David, Lisa Onaga,

Ivan Rosero, and Trevor Pinch. “To have and to hold: Exploring the personal

archive.” *CHI '06 Proceedings of the SIGCHI Conference on Human Factors in*

Computing Systems 1(2006): 275-284. *ACM Digital Library*. Web. 15 Nov. 2015.

<<http://dx.doi.org/10.1145/1124772.1124814>>.

This paper is about a study of 48 academics and the methods they employ for personal digital archiving. This piece is a good introduction to the librarian who wishes to learn more about personal digital archiving from a scholarly and/or academic standpoint.

Published in the Proceedings of the Special Interest Group on Computer-Human Interaction Conference, the article explores both the goals of personal archiving and the structure of archiving, beyond the public library scope.

The study is an excellent resource for librarians wanting to expand their digital archiving knowledge, and it views the inherent issues of digital archiving through a broader lens. Not bogged down in tech heavy language, the paper explores some basic archival theory, and outlines digital archiving as, "a functional problem involving storage, retrieval and a system that organizes this storage and retrieval."

Cushing, Amber L. "Highlighting The Archives Perspective In The Personal Digital Archiving Discussion." *Library Hi Tech* 28.2 (2010): 301-312. *Library, Information Science & Technology Abstracts*. Web. 29 Nov. 2015.

This paper further explores personal digital archiving from a broader, more professionally focused, archival perspective. It also expands upon the concepts and challenges laid out in the Catherine Marshall articles, "Rethinking Personal Digital Archiving" Parts I and II.

This article is for the ambitious librarian who seeks to develop a career that includes both extensive knowledge of personal archiving and entrance into the larger digital preservation realm.

Cushing, who wrote this piece while she was a doctoral student at Chapel Hill, is now an assistant professor and Director of the MLIS Program at the School of Information and Communication Studies at University College Dublin, Ireland. Her research specialty is the intersection of Personal Information Management (PIM) and Digital Curation.

LOOKING FORWARD

Lynch, Clifford. "The Future of Personal Digital Archiving: Defining the Research Agendas." *Personal Archiving: Preserving Our Digital Heritage*. Ed. Donald T. Hawkins. Medford: Information Today, Inc., 2013. Chapter 13. Print.

This is the concluding chapter of a book published in 2013 on personal archiving. Although the entire book must be purchased, this chapter is available for free online as a "sample" chapter here: <http://books.infotoday.com/books/Personal-Archiving.shtml>. This article by Lynch nicely ties together several broad concepts and fields for the librarian interested in the bigger picture.

As personal digital archiving continues to expand in both its definition and application, both academic and social interdisciplinary connections continue to be made. As a sub-field of information storage and retrieval, the ramifications of personal digital archiving are highly important to librarians, as are the issues of private versus personal information and archiving in the digital realm.

The article sums up the great expanse of issues from the individual all the way to the World Wide Web, and it serves as a nice conclusion for any librarian interested in further career development. Lynch pieces together all of the research areas a professional could choose to focus on as the digital archiving field continues to grow, including public policy and matters that expand into a larger framework of discussion about preservation of the intellectual and cultural record.

Clifford Lynch is the director of the Coalition for Networked Information (CNI) and an adjunct professor at Berkeley's School of Information. Previously, he was Director of Library Automation at the University of California. Lynch lectures extensively on issues pertaining to digital libraries, information policy, and emerging interoperability standards.

FOR THE PATRON

Hello personal archivist! Most likely you have personal information, photographs, and other memories that are special and important in your life. Even more likely, a growing number of these items are in a digital format. If you are reading this list, then you understand the importance and need to actively manage your digital items to both preserve them and ensure their accessibility in the future. To help you in your endeavor, we at the library have created a reading list with resources that will cover all things personal digital archiving (PDA).

This annotated reading list has been designed to introduce broad concepts behind PDA, provide practical advice and how-to's, introduce the cloud and discuss its advantages and disadvantages, highlight risks to personal computers when utilizing the Internet for preservation, and help to plan a digital estate. This guide has been organized to flow from broad concepts to specialized ideas. It also has headings with subheadings to further divide the list to make it easier to scan for individual articles of interest.

There are four main categories to this list:

1. **STRATEGIES, MANAGEMENT TECHNIQUES, AND HOW-TO'S** (several resources which discuss broad concepts and techniques behind PDA, as well as a few resources which offer content for specific types of PDA and materials)
2. **ALL THINGS CLOUD COMPUTING** (what it is, how to use it, and what are the pros and cons of the cloud)
3. **SECURITY CONCERNS AND RISK PREVENTION** (information about computer viruses, malware, etc. and how to avoid these dangers)
4. **PLANNING FOR THE DIGITAL LIFE AFTER DEATH** (how to ensure your digital materials are cared for upon your death and ways to provide continued access to designated individuals)

Within each section the articles attempt to flow from broad to specific as well. This list has been compiled with you, the patron, specifically in mind. We wanted to offer a wide array of content, numerous resources, and information we felt might be of most interest to you on your personal archiving adventure. You might not use all of these resources, but hopefully we have provided enough options that several catch your attention and are useful to you and your specific needs.

Please ask any librarian at the reference desk to help you with these resources; either to discuss methods, or to recommend a few articles for your use. Also, if we did not manage to cover an issue that concerns you, ask the reference desk for help so we can find something that meets your needs.

Good luck and happy archiving!

Looking for a digital copy of this guide? Be sure to check out the library's LibGuide with all of this information here:

<http://libraryschool.libguidescms.com/content.php?pid=689303>

STRATEGIES, MANAGEMENT TECHNIQUES, AND HOW-TO'S

INTRODUCTIONS

Columbia University. "Gone in a flash? Personal Digital Archiving Workshop." Online video clip. YouTube, 13 Sep. 2012. Web. Nov. 2015.

<<https://www.youtube.com/watch?v=pQGAVfCw4Pw>>.

This is an hour-long video from a presentation done at Columbia University in 2012 on personal digital archiving. This video is recommended for anyone wanting to get an introduction to the basics of digital preservation before reading literature on it.

The intended audience are those hoping to personally archive their digital materials, and the presenter adequately presents helpful visuals alongside his thorough presentation. This resource will help prepare novices to determine what tools will be necessary to begin their personal digital preservation projects, and it also serves as a great look at what it is to preserve digitally.

Hill, Simon. "How do You Preserve Your Personal Data Forever? We Ask an Expert."

Digital Trends. Digital Trends, 12 July 2015. Web. 29 Nov. 2015.

<<http://www.digitaltrends.com/computing/how-do-you-preserve-digital-data-forever/>>.

Serving as a good introduction to digital preservation issues and concerns, Digital Trends website attempted to address the question "How do you preserve your personal data forever?" through expert advice. This article discusses the shelf life of digital data, how to ensure "precious digital files" are preserved long term, and what to do when we can no longer access files due to illness or death. Comparing digital preservation to traditional physical storage of photographs and papers, the article makes the distinction that digital data cannot be maintained in the same way, even if stored in "good conditions." Digital files have distinct risks: threats of media failures, hard drives dying, DVDs failing to be read, bits unable to be read because software no longer exists to render it, or file formats becoming obsolete.

The article also discusses the fact that "not all storage is created equal." The article addresses how media for consumers is not built for long-term storage, and most operating systems are only designed for a 3-5 year time span. The article also includes videos which cover media life concerns and solutions, benefits and risks of cloud storage, and a how-to for using Google Data Center as a resource. Further, Hill promotes storing data in "multiple locations to preserve it" and also discusses why file formats matter too.

Patrons would find this article beneficial because it addresses specific yet major issues when considering how to store digital data. The videos also make it a rich resource to consult. Hill's article introduces many issues to be aware of before jumping into the role of personal digital archivist. The better prepared and knowledgeable of potential concerns prior to archiving, the better prepared you will be to handle them as they arise.

GENERAL STRATEGIES AND RESOURCES WHICH COVER A WIDE ARRAY OF
DIGITAL NEEDS

"Digital Preservation 101: Introduction." *Digital Preservation in a Box*. Outreach

Working Group of the National Digital Stewardship Alliance, 2015. Web. 29

Nov. 2015.

<http://dpoutreach.net/?page_id=2>.

Digital Preservation in a Box is meant to be a beginner's guide for getting started with preserving digital information. According to the introduction, digital preservation is a "series of managed activities necessary to ensure meaningful continued access, for as long as it is required, to digital objects and materials." It is also a "set of processes and activities that ensure long-term, sustained storage of, access to and interpretation of digital information." The website considers the ultimate objective of all digital preservation is to "keep valuable and useful digital material (increasingly online) available for future generations of scholars, researchers and other users."

Since the resources outlined in Digital Preservation 101 are basic and meant to be an introduction to digital preservation, it offers valuable resources for patrons looking to get started in preserving their personal digital collections. The resources are outlined in a list, and it consists of a mix of videos, websites, and blogs—which altogether make for a valuable resource. Included is a webinar on preserving personal digital memories, the digital legacy website "The Digital Beyond" (which offers important information for personal archiving), and a blog titled "Digital Preservation for Beginners" which strives to address the "what" and "why" of preservation in a way people will understand easily. These resources should thoroughly address most questions a beginner in digital preservation may have.

Wingo, Sarah. "Preserving Personal Digital Files." *University of Michigan*. A University

of Michigan Library Instructional Technology Workshop, Aug. 2012. Web. 22

Nov. 2015.

<<http://www.lib.umich.edu/files/services/preservation/PreservingPersonalDigitalF>

ilesGuide.pdf>.

The University of Michigan Library offers a valuable resource for beginners to personal digital archiving in is this 24-page PDF on preserving personal digital files. It is divided into several sections, which consist of the following: What is Digital Preservation?, The Basics of Digital Preservation, Preservation by File Type, Backup, and Further Reading. The information is organized in a manner that makes it easy to find specific content about each step in the digital preservation process. The progression of concepts build upon one another in the piece, making it a useful resource for a beginner learning personal digital archiving, or for someone needing an ongoing resource as they archive their files.

In addition, under the “Basics of Digital Preservation,” the topics of migration and advanced organization are discussed, which also makes it a resource that stands out from others. The advanced organization specifically discusses metadata, how to add it, and citation management tools. The section on preservation by file type is organized in a way that would be easy to reference, listing the different types on its own page, and then clarifying further details about each one if needed. For example, text files are discussed and the differences between pdf and pdf/a are touched on. Images are also discussed, as well as detailed information about compression and the differences between jpg and tiff.

This should be a go-to resource that is frequently referred to by people archiving their personal digital files. It not only is a terrific tool to use for first beginning personal archiving, but could also be utilized for advanced techniques too.

“Personal Archiving: Preserving Your Digital Memories.” *Library of Congress*. Digital Preservation, n.d. Web. 06 Nov. 2015.

<<http://www.digitalpreservation.gov/personalarchiving/index.html>>.

The Library of Congress (LOC) offers a wonderful website dedicated to digital preservation that offers a useful and comprehensive guide for personal digital archiving. Since the LOC is a trusted government information provider, this resource would be ideal for any beginner of digital archiving to use as a guide. The information on the website outlines best practices and digital preservation standards. It also offers tools, services, resources, and educational opportunities to learn more about the subject.

The website offers an overview of personal archiving, starting with a video on introduction to scanning. Another video in the overview presents why digital preservation is important. The overview also includes PDF's on how long digital storage media lasts, a personal archiving brochure, and low-cost ways to preserve family archives. Other sections in the personal archiving section outline how to preserve different file types of digital materials, such as digital photographs, audio, video, electronic mail, personal digital records, websites, and social media. A personal digital archiving day kit is provided by the LOC that organizations can use to provide guidance about personal archiving, so individuals could use it to refer to for their individual needs or find an

organization that is hosting the program. A section titled “Learn More” also offers a personal digital memories poster, a quiz to learn facts about digital materials, a “preserving digital culture” presentation, and other relevant news related to digital preservation. The 8-page brochure they provide for “Preserving Your Digital Memories” is of particular importance and can be downloaded at http://digitalpreservation.gov/personalarchiving/documents/PA_All_brochure.pdf. Also, their two page PDF on archiving email would be ideal for people to keep as a resource, and it can be found at: http://www.digitalpreservation.gov/personalarchiving/documents/archive_email.pdf.

This should be a go-to and bookmarked option for those looking to develop their personal digital archives.

“Posts Tagged ‘Personal Digital Archiving.’” *Public Libraries Online*. Public Library

Association, 2015. Web. 22 Nov. 2015.

<<http://publiclibrariesonline.org/tag/personal-digital-archiving/>>.

For those seeking more specific advice on digital preservation tactics, a series of articles in Public Libraries Online addresses the different strategies and things to consider for personal digital archiving. Different articles can be selected depending on user needs, but some of the topics addressed in this index of articles are: adding descriptions to digital photos, cloud storage as a backup option for personal digital archiving, digital estate planning, saving cell phone texts in archives, backing up digital collections, file name specifications, resources for personal archiving efforts, dealing with digital clutter, gathering digital files, and simple archiving processes that can be done in a few steps. The variety of information contained in this resource will answer many questions as someone gets started in archiving their digital files.

Each of the articles covers some important aspect of personal digital archiving, and personal archivists might find it best to review all of the articles to ensure that their strategies best meet their individual needs and preferences. For example, before setting up an archive, it is important to determine whether the archive will be cloud based or saved locally; thus, reviewing the article “Cloud Storage as a Backup” will be beneficial prior reading. Alongside that, reading “Backing Up your Collection” could further clarify options in getting started with backing up archives. The other two articles critical to those backup methods will be the information within “File Names” and “Organizing Your Stuff” for the personal digital archives. “Dealing with Digital Clutter” will be important to considering how to organize everything too. In making all those decisions, consulting “Resources for Personal Archiving Efforts” will be valuable to review personal digital archiving options.

This list of articles is an ongoing one of topics related to personal digital archiving that will continue to grow and change. As a result, bookmarking this webpage as a useful

resource might be beneficial as technology continues to change and develop in regard to digital archiving.

Malquist, Andrea, Brandon Locke, Andrew Crook, and Kristin Petersheim. "Digital Preservation for Library Patrons." *Springshare*. LibGuides Sandbox for Library Schools, n.d. Web. 22 Nov. 2015.

<<http://libraryschool.libguidescms.com/content.php?pid=645483&sid=5343054>>.

This libguide is a useful resource for anyone attempting to preserve their digital files, and it is organized in a way that makes it easy to compartmentalize the different types of preservation that needs to be done depending on file type. Each type of file is listed under its own tab with detailed descriptions about the different file formats each one has, best preservation methods for each one, and other applicable details that might make personal digital preservation efforts hold up well for the long-term.

The guide also refers to helpful books that could be referred to or information on the Library of Congress website. The different sections of the libguide are divided by image files, text files, video files, social media, email, digital rights limitations, and storage options. In particular, the email tab goes above and beyond in discussing resources that are not commonly known but rather helpful.

This could be a valued tool for those looking for a broad range of digital preservation content.

"Personal Digital Archiving Conference 2015 Videos." *Internet Archive*. 2015 Personal Digital Archiving Conference, 03 Jun. 2015. Web. 29 Nov. 2015.

<<https://archive.org/details/PDA2015>>.

The Internet Archive has offered the video collection from the Personal Digital Archiving Conference that took place in New York City in 2015. This resource is valuable to patrons because the conference was geared toward personal digital archiving, and it includes approximately 11 hours of video on how to personally archive digital files. The videos are also valuable because the videos are relatively recent and should address current trends in personal digital archiving. To make it easier for people, the video files can be downloaded in several formats: H.264, OGG video, QuickTime, or torrent.

The videos included are of the different talks that went on during the conference, such as the welcome and keynote speeches, a segment on Digital Preservation and Art, Lightning Talks, a talk by Wendy Hagenmaier (who is a professional archivist), community based approaches to personal digital archiving, personal tools and methods for archiving, and

more. The conference videos provide a wealth of information, and the set of videos could replace the missed opportunity of actually attending the event.

Again, this is recommended for those looking for more in-depth approaches to personal digital archiving.

DIGITAL PRESERVATION TECHNIQUES WITH A FOCUS ON MANAGEMENT STRATEGIES

“Personal Digital Archiving.” *Columbia University Libraries/Information Services*.

Digital Humanities Center, n.d. Web. 22 Nov. 2015.

<<http://library.columbia.edu/locations/dhc/personal-digital-archiving.html>>.

This is another resource with varied information and suggestions for digital preservation practices. This website discusses many important aspects of personal digital archiving, and it provides links to a helpful libguide created by Libraries and the Center for Digital Research and Scholarship which specifically outlines online resources for personal digital archiving. The article stresses that everyone creates “enormous amounts of electronic material,” which can derive from research, writing, phones, emails, internet communication, business, transactions, online interactions, and it can come in many formats, such as word files, databases, pdfs, webpages, media files, computer programs, social media, and more. All of those electronic materials which come in different formats also can exist on different devices, such as computers, tablets, cell phones, USBs, CDs, DVDs, hard drives, servers, etc.

It is apparent that the different layers of electronic material demand a multitude of things to consider, which make personal digital archiving something that must be addressed with knowledge and education. Columbia University provides not only the libguide, but an outline of important factors for personal digital archiving. It begins with the initial suggestion to “get started now.” After getting started, people should try to make it part of their ongoing routine because catching up on preservation can complicate things. Also, the resource stresses that people should determine their policies and practices in their personal digital preservation processes and set up consistent practices such as naming conventions, storage of backup data in two or three locations, and continually address software and hardware needs to accommodate their digital files. This serves as a good tool for those seeking information on not only how to preserve, but also how to manage and organize their digital records too.

Oosterhoff, Dawn. “What is Digital Asset Management and Why Do You Need It?”

Envatotuts+. Digital Asset Management, 25 June 2015. Web. 29 Nov. 2015

<<http://photography.tutsplus.com/articles/what-is-digital-asset-management-and->

why-do-you-need-it--cms-24292>.

TutsPlus is a reliable and current resource that anyone could consult for all types of guidance on digital information. Their recent series called “Digital Asset Management Fundamentals” is a learning guide geared toward photographers, but also addresses the universal ways in which people create and use digital media.

This particular article from the series would be a beneficial and valuable place to begin since it discusses the basics of digital photography and video, and it also goes into detail about the challenges that come with it. The purpose of the article is to offer guidance on digital asset management to deal with the influx of digital photo files. The first section begins with the defining digital asset management, which is a “system of practices, conventions, hardware and software for organizing, sorting, storing and haring digital images and video files.” Under that section, people can link to an article discussing why people need digital asset management; which is a particularly valuable article because it discusses society's use of the new medium of digital photography and how they might not know how to fully organize or use their new technology. The other sections focus on digital asset management systems, adding information and organization to your collection, and related courses for “more in-depth” learning. Overall, this resource potentially could be useful to anyone looking to set up a digital preservation system.

Duffy, Jill. *Get Organized: How to Clean Up Your Messy Digital Life*. PC Mag, 2013.

Print.

Managing clutter and files on computers, tablets, and cell phones is a constant battle, but techniques and strategies are available to keep everything stored digitally maintained, and even productive. Software expert Jill Duffy explains several methods that will help people deal with the daily flow of their digital life. She discusses specifics about streamlining email inboxes, managing current finances and ones that even occur after death, organizing of personal photo albums, protecting passwords, and handling social media accounts.

The current information in this book will be applicable to almost anyone, and for people with varying digital needs. At some point, almost everyone will be faced with making decisions online or encountering times in their life when they must conduct personal or professional affairs online, on a computer or on other devices. This resource offers guidance on how to deal with those times. This resource will be beneficial for the personal archivist who needs advice on how to organize all of their work, and it will also help those who wish to save time and not waste their energies on archiving as well.

INFORMATION ON SPECIFIC MATERIAL TYPES & ITEMS

Levenick, Denice May. *How to Archive Family Photos: A Step-by-Step Guide to*

Organize and Share Your Photos Digitally. Cincinnati, Ohio: Family Tree Books,

2015. Print.

This book is a valuable resource for anyone needing to organize and preserve their digital photos from their smartphone, digital cameras, computers, or storage devices. It serves as a how-to guide to manage digital photo collections, and it also discusses how to digitize photos that have started out in paper form. Thus, it helps instruct on how to have all photos stored digitally in one location.

Part of setting up a digital collection is not only organizing the photos, but knowing how to manage files. This includes consistently backing them up, having naming conventions for files, and knowing how to tag—which the book goes into detail about. Checklists are provided to help readers keep track of the steps they have gone through to digitize their collections. Twenty-five photo projects are offered as ideas for setting up, preserving, and sharing photos.

The basics in this book should be an ideal starting place for setting up and sharing digital photo collections that can be preserved and maintained over time. It is also likely that as technology changes, revised and updated editions will eventually be available.

Duncan, Geoff. “Ditch the Shoebox for a Vault: How to Preserve Your Digital Life for

Decades.” *Digital Trends*. Digital Trends, 15 Mar. 2014. Web. 22 Nov. 2015.

<<http://www.digitaltrends.com/computing/keeping-data-safe-eternity/>>.

This article in Digital Trends provides a simple overview of different file storage mediums people can consider when archiving and storing their digital files for the long-term. It discusses optical mediums such as CDs, DVDs and Blu-rays, but it also goes into detail about the differences between them. It also discusses how effective they would be for long-term archival purposes. The article does the same for discussion of the different types of hard drives, and flash drives, pointing to details that might improve or cause problems in the archival process. It also reviews the cloud as a storage medium, discussing different services that provide cloud service, and the benefits and drawbacks to relying on cloud-based archiving. As part of the digital archiving process, Digital Trends says people should also consider their data format options since they need to be able to open and read the files in the future. They also touch on the importance of social media history and its preservation.

What is nice about the Digital Trends article is that not only does it compare and contrast the different storage mediums, providing additional details on each, but it ends with a bulleted list of a general “best plan” for digital archiving. Generally, anybody could review the list or integrate it into their personal procedures and find it helpful as they look for ways to store their digital files. The list includes the following bullet points (followed with more details about each): make regular backups, make archives, make copies, storage archives in cool, dry place, request regular backups of social media activity,

convert documents and media out of proprietary formats, and consider encryption of archive. Overall, the article provides succinct and valuable information for specific material types and items involved with digital archiving.

Waxer, Cindy. "Storing financial files digitally." *Bankrate*. Bankrate, 11 Sep. 2011. Web. 08 Dec. 2015.

<<http://www.bankrate.com/finance/personal-finance/storing-financial-files-digitally-1.aspx>>.

This entry is for the financially minded individual looking to digitally archive their financial records. As more tax forms, banking paperwork, and other financial matters are handled electronically, it makes sense to have a procedure in place to digitally store these important documents.

Waxer's article offers five different methods for how to digitally store financial records, tax forms, bank information, etc. The article explores the positive and negatives of using web-based storage services, USB flash drives, external hard drives, CD-Rs and CD-RWs, and network-attached storage hard drives. Suggestions for specific resources and tools are also discussed within this article.

This is a great place to begin research for deciding which method(s) to use for digitally archiving financial records. Each method has its merits and failings, and this piece will help personal archivists decide which method(s) best meet their needs. Coupling this article's content with the knowledge from the other resources listed will help ensure that financial records are properly archived and preserved for future use.

"Internet Archive." *MPG.ReNa Resource Navigator*. Max Planck Society, n.d. Web. 10 Nov. 2015

<<https://rena.mpdl.mpg.de/rena/Record/ERS000001789>>.

This webpage gives a very brief overview of what the Internet Archive is, what it does, and information on how users can use the site. It also has links to both the Internet Archive and the Internet Archive's Wayback Machine.

Any patron interesting in preserving a personal website can use the Wayback Machine as a preservation tool (provided their website allows crawlers). Do note: the Wayback Machine only captures what the webpage looks like at the date/time of the capture request, and only at the designated URL entered into the Wayback Machine's task bar.

Information about the Wayback Machine and its link are provided here as it offers a way to preserve and document what a particular website looked like at a specific moment in

time. Patrons interested in tracking the evolution of their website, or in documenting what content was posted at a specific date/time, will find this website of interest.

“Infokit: Digital File Formats.” *JISC Digital Media*. JISC, n.d. Web. 29 Nov. 2015.

<http://www.jiscdigitalmedia.ac.uk/infokit/file_formats/digital-file-formats>.

JISC Digital Media is a website full of infokits, toolkits and training aimed to help the UK's efforts for providing ongoing skills development in knowledge and use of digital media. Their resources are generally developed for educators, but patrons can find expert advice through their infokit for digital file formats.

As they state in the overview of digital file formats, the “pace at which the language and relevance of digital files evolves can be hard to keep up with.” File formats become obsolete or change, and technical information needs to be continually updated to coincide with current developments so preservation and dissemination of digital objects can be done correctly, efficiently, and with lessened risk of issues. The purpose of their digital file format infokit is to provide information on current file formats, while keeping abreast of future developments.

Their infokit is useful as it covers many aspects of file formats. It is broken down into several categories of file formats, making it easier for those wanting to preserve different types of files. First, it discusses recommended file formats and properties for creation, digitization activities and delivery, compression, open versus proprietary formats, and additional functionalities of digital files. The different file formats covered are digital image formats and compression, digital audio, digital video, common still image formats, common audio formats, and common video formats. Overall, it is a very useful resource for patrons seeking advanced and detailed information about file formats and how they might affect their personal digital archiving efforts.

ALL THINGS CLOUD COMPUTING

WHAT IS THE CLOUD AND HOW DO I USE IT?

Time. “What Is ‘The Cloud’?” Online video clip. YouTube, 28 Feb. 2015. Web. 18 Nov. 2015.

<<https://www.youtube.com/watch?v=btNwW6Ax3Vg>>.

Patrons may have either heard of the cloud and/or are possibly using it without even being aware of it, without quite knowing what it is exactly. This 80 second video provides a short, informative crash-course on what users need to know about the cloud so that they can make better choices when using services that utilize the cloud.

The video begins by explaining what the cloud is and the benefits of using it. The video also gives an example of cloud technology in action. Finally, it concludes with a prediction of what cloud usage means for technology in the future.

This short video is a great introduction to what the cloud is for curious patrons. Also, it makes sense to understand what the cloud is because it is so prevalent in today's technology. As digital preservation, and online access and storage in general, most likely will use cloud technology, it is worthwhile to know what exactly it is you are working with. Further, understanding how the cloud works makes it easier to understand why there are inherent dangers with using the cloud. Through knowing and understanding, prevention of theft or hacks can be more easily averted.

Aschenfelder, Michael. "Personal Digital Archiving: Cloud Storage as a Backup." *Public Libraries Online*. Purch, 19 August 2013. Web. Nov. 2015.

<<http://publiclibrariesonline.org/2013/08/personal-digital-archiving-cloud-storage-as-a-backup/>>.

Public Libraries Online offers an article from Library of Congress staff on using cloud storage as a backup option for personal digital archiving. As stated in the article, cloud storage should be in the repertoire of personal digital archiving strategies for people, but one cloud service location should not be relied upon for all of one's files and archives. Benefits of using cloud backups are introduced in the article, such as its ability to make backups from any geographic location and how online backups to the cloud are not dependent on hardware upgrades.

Special considerations need to be made when choosing a cloud service though. The most important things to begin with are cost of service and ease of use. Since cloud storage is still being developed, it is growing and changing rapidly. This means that not all cloud services will offer the same service or address optimal needs. For example, some plans price by volume of data while others price monthly with flat fees and no caps. Also, some cloud services are month-to-month billing while others are yearly. The article states too that people should consider the technical specifications each cloud service offers before signing up for one. For example, how are files uploaded to the cloud? Can the cloud content be accessed anyway, from any Internet Connection? Can files be deleted once uploaded? Can duplicate files be stored or will new ones replace old ones? Finally, the article charges users to consider their type of internet connections and network speeds because it will affect uploads to the cloud.

Overall, the article is an ideal resource to guide people on how to get started backing up their items through the cloud.

STAYING SAFE ON THE CLOUD

Ivey, Victoria. "5 Tips to Keep Your Data Secure on the Cloud." *CIO*. CXO Media Inc.,

16 Dec. 2013. Web. 17 Nov. 2015.

<<http://www.cio.com/article/2380182/cloud-security/5-tips-to-keep-your-data-secure-on-the-cloud.html>>.

Once patrons know what the cloud is, questions over security will arise. Is uploaded content safe? What are companies doing to guard my information? What can I do to protect myself? This website post gives some advice on how users can help protect their information stored on the cloud from unwanted users.

The article begins by pointing out the failure of current legislation for information located on the cloud, despite its growing popularity. Servers accessed overseas might follow different regulations than what you may think; even who can legally access is questionable at times. The article then lists 5 pieces of practical advice for those using the cloud. Topics covered include: avoiding storage of sensitive information, the importance of understanding the user agreement, password importance, and the benefits of encryption.

Understanding potential issues with cloud storage, and basic procedures to protect your information, is helpful to maintain security of digital information. Any user interested in digital preservation, who wishes to prevent hacks or information theft, should become aware of the little things they can do to increase cloud security.

Brown, Andrew. "How to Keep Your Data Safe and Secure in the Cloud." *Bluehost*.

Bluehost, 3 June 2015. Web. 17 Nov. 2015.

<<https://www.bluehost.com/blog/security/how-to-keep-your-data-safe-and-secure-in-the-cloud-5400/>>.

This is another blog post that offers even more suggestions for how to keep data stored on the cloud safe from hackers. Again, once a user decides to actively use the cloud, they should be aware of the inherent risks and how to prevent security breaches.

The article begins by explaining the benefits of using the cloud, which is helpful for those new to the cloud concept. The article points out that while utilizing the cloud has its benefits, there are still concerns that users should address to increase security. Brown discusses the advantages of two-step password verification, encryption of files, regularly deleting outdated data (which might not apply to all preservation efforts, but will for

some), the benefits of anti-virus software, and warns about not forgetting the vulnerability of accessing information via smartphone.

Again, the suggestions found in this article helps to protect digital content uploaded by patrons in the quest for preservation. Preservation is useless if the content can easily become corrupted. These security precautions can help prevent that from occurring.

SECURITY CONCERNS AND RISK PREVENTION

GENERAL SAFETY TACTICS AND INFORMATION

Cherry, Denny. "Chapter 1 – Storing Your Personal Information Online." *The Basics of*

Digital Privacy: Simple Tools to Protect Your Personal Information and Your

Identity Online. Amsterdam: Elsevier, 2013. 1–17. Print.

When using the Internet as a form of storage, or even as a means to manage personal accounts/bills, knowing how to use the Internet safely is important. The more personal information that is placed online, the more possibilities there are for hackers or identity thieves to utilize that content. However, individuals can take precautions to prevent information from being hacked or stored.

This chapter discusses some of the dangers of storing information online. It starts with an overview of how much data companies can keep of individuals and how they use this information (often to personalize ads). It discusses how users need to be cautious of how much information they share on the Internet because it could lead to disaster. For example, the combination of sharing too much personal information and having simple challenge questions on websites for log-in security can lead to a hacker being able to reset your account password if they know your email address. The chapter then explains what cookies are, how they can be dangerous, and how to disable cookies on a few popular web-browsers.

This reading is a good, easy guide to explain possibly un-thought of Internet security concerns, as well as a good read to draw awareness to how much personal data is stored without a user being aware. A patron seeking to use the Internet as a means to preserve content should be aware of some of the risks they may encounter, as well as how to counter the risks from adding personal content online.

Cherry, Denny. "Chapter 2 – Usernames and Passwords for Websites." *The Basics of*

Digital Privacy: Simple Tools to Protect Your Personal Information and Your

Identity Online. Amsterdam: Elsevier, 2013. 19–31. Print.

Chapter 2 of *The Basics of Digital Privacy* offers more advice on how to keep hackers and identity thieves from accessing personal accounts. Again, this offers content that might not be readily thought of by users when they begin the process of digital preservation. However, the more personal information that is placed online, the easier it is to be hacked or have identity theft occur. But this can help prevent such events.

This chapter lists helpful suggestions of how to select both usernames and passwords. It explains the importance of good, strong usernames and passwords, as well as offers tips of what to avoid when selecting this information. The chapter also gives an overview of how passwords are figured out to offer more insight into what to avoid. The chapter concludes by talking about a program, KeePass, which can be downloaded by a user interested in password creation and management. The program can create unique passwords and stores them for the user. The chapter also gives an overview of Two-Factor Authentication.

This is an accessible guide to creating secure usernames and passwords. Any patron interested in using the Internet for preservation, bill pay, or banking purposes—*anything* with personal content really—should give this a read to verify that the usernames and passwords which they are using are secure enough.

NASTY THINGS: VIRUSES AND MALWARE

Hooper, Charles R. "Ten Ways to Prevent Viruses and Malware." *TopTenReviews*.

Purch, 12 June 2012. Web. 23 Nov. 2015.

<<http://anti-virus-software-review.toptenreviews.com/learning-center/ten-ways-to-prevent-viruses-and-malware.html>>.

Anytime a person goes online they put themselves at risk of contracting a computer virus, Malware, and more. These malicious programs often fish for personal user information, or can be so severe that a user's hard drive can be lost. Therefore, any patron seeking to preserve content digitally needs to be aware of best practices of how to prevent an infestation on their computer.

This post offers some of the more common, easiest ways to prevent contracting malicious software on their computer. Hooper addresses the following: using and updating anti-virus software, why firewalls are important, adjusting your browser's security settings, using common sense when opening email attachments and links, checking the cleanliness of downloads and being wary of file sharing, keeping software and operating systems updated, and more.

While this is just a brief overview of tips to avoid malicious software, it can be a good start when learning the basics. Further research will need to be done by those interested in advancing their knowledge of virus protection. However, this is included here as it is

worth mentioning to help protect the digital content a patron is working to preserve online.

PLANNING FOR THE DIGITAL LIFE AFTER DEATH

DO IT YOURSELF

Hoexter, Laura, and Alexandra Gerson. "Estate Planning with Digital Assets." *Helsell Fetterman*. Estate Planning and Probate Group, 2015. Web. 29 Nov. 2015.

<<http://www.helsell.com/faq/estate-planning-with-digital-assets/>>.

Most everyone in today's society will leave behind not only a paper trail and other physical assets, but they will also have electronic files and digital assets saved on computers, social media websites, storage devices, online accounts, and more. It is worthwhile for everyone to have awareness of how to manage and preserve the different aspects of online life once someone has passed away or when someone has been put in charge of a digital estate.

The law firm Helsell in the state of Washington has put together a comprehensive and thorough resource for this purpose. It details what digital assets are, how to preserve digital assets, and how to prepare them to be transitioned to someone else in the event of death. They provide a concise and organized list of the five important steps that need to be taken when preserving digital assets and preparing them for transition. It also offers excellent and useful summaries on common online tools and services people often have accounts to and how those services accommodate and manage accounts after account holders have died. Some of the online tools listed are LinkedIn, Facebook, iTunes, Gmail, Yahoo, and Twitter.

This resource is valuable since it provides the basics on digital assets, why they are important to people, and provides information on some of the common tools people would likely need to consider as they deal with their estate or someone else's.

Carroll, Evan, and John Romano. "Chapter 13 Social Websites." *Your Digital Afterlife: When Facebook, Flickr and Twitter Are Your Estate, What's Your Legacy?*

Berkeley: New Rider, 2011. 133–147. Print.

Although this entire book might be of interest to patrons seeking information on how to manage their digital footprint after death, this particular chapter gives advice on how to manage social media websites, which might be of primary interest due to heavy use. When content is uploaded and saved online, it is important to make sure that the content can be accessed for continued preservation and use by surviving family members/friends. Providing a means of access after death is especially important when so much of this

content is guarded to restrict access to proper users. Further, it might be challenging for living relatives to request access to social media sites under current privacy laws. This book provides a guide to make sure digital content is not lost upon death.

The chapter gives a short guide of how to provide access to social media sites after death. The chapter talks about why this is important and some issues/concerns that may arise. Advice is given on how to provide awareness, access, and the deceased's wishes of social media content (a sample graphic on how to organize this information is given too). The chapter also discusses memorializing an account, informing online contacts/friends of the deceased's passing, and current terms of service regarding death for a few popular websites.

This entry is useful to patrons in that digital preservation and protection does not stop after death, and this resource provides specifics on how to manage digital assets after death. Failure to provide access information could mean that all of the preservation work done in life is lost, amounting to nothing.

DO IT WITH OUTSIDE HELP

Caron, Paul. "NY Times: Dropbox For The Dead—Preserving Digital Assets For Your

Family After You Are Gone." *Law Professor Blogs Network*. TaxProf Blog, 28

Oct. 2015. Web. 29 Nov. 2015

<http://taxprof.typepad.com/taxprof_blog/2015/10/ny-times-dropbox-for-the-dead-preserving-digital-assets-for-your-family-after-you-are-gone.html>.

The Law Professor Blogs network provides this article on preserving digital assets for family members after one has passed, or is incapacitated. It discusses how a technologist in his 50's from Seattle began preparing a digital legacy for his children, but decided against "traditional estate planning strategies." He instead used a new system called "SafeBeyond" that safely stores written records and video wishes, keeping them private until death, or until a designated time the user has set. SafeBox has been compared with DropBox, but is not for general storage. Instead, it is storage for "the hereafter."

The purpose of SafeBeyond is to give anyone a way to record personal messages that could be included as part of their estate. The originator of the system, Mr. Zur, said he wanted to provide a tool for people to manage how they will be "remembered" by loved ones after death.

This is a good tool for patrons who want a more "hands-on" approach to digital estate planning, yet want some outside help with its management as well.

Planned Departure: Life and Estate Planning Tools for the Digital World. Planned

Departure, 2014. Web. 22 Nov. 2015.

<<https://www.planneddeparture.com/>>.

Planned Departure is a company that specializes in life and estate planning through use of digital tools and online space. At some point, files, information, bills, medical information, and other “digital footprints” will need to be organized and archived, yet also accessible, in the event a person becomes sick or passes away. Planned Departure provides the means to help people digitally organize their information to make decisions easier for those accessing and managing the information.

Signup is free, but different plans and pricing are available depending on people’s needs and preferences. Security of information is also one of the company’s priorities, which means they offer bank level AES 256 bit encryption, Symantic SSL, encrypted data storage, regular audits of the servers, and more.

Even if not using Planned Departure long term, it could provide guidance on what people should account for and keep track of since much of their information is online, or often is stored digitally. They offer a survey that can be a guide for someone’s digital footprint: https://www.planneddeparture.com/legacy_calculator .

This could be a good resource for those who feel a little guidance would be helpful with planning their digital estate.

Assets in Order: Your Legacy Lockbox. Assets in Order, 2015. Web. 29 Nov. 2015.

<<http://www.assetsinorder.com/>>.

Legacy Lockbox is an option for anyone looking to consolidate, organize, store, and distribute their estate information digitally. Those interested can join through a basic membership for free, or a heritage membership for \$19.95 per year. Since it is a cloud-based system, it can provide a secure resource that can be relied upon in the event of natural disasters. Users can store just about any document of choosing, including: personal documents, wills, powers of attorney, insurance policies, mortgage information, stocks and bonds, and more. Passwords and account information (such as business information, email account information, social networking accounts, etc.) can be stored on the site as well. It can also be used as a resource to store family photos, memorabilia, and genealogy. Another invaluable use would be for wishes and instructions after death; this includes videos with messages to loved ones, letters, and property, business, and other personal instructions for family.

All people will leave behind important information and resources upon their death and Legacy Lockbox provides an all-in-one approach for organizing assets into one digital location. It not only offers an extra measure of protection of preservation for physical

estate documents, but can simplify processes of dealing with one's estate after death, can provide comforter to loved ones, and clarify possible legal issues that might arise. It could be a very important resource for people.

EXAMPLES OF WEBSITES WITH “DIGITAL LEGACY” POLICIES

Duggan, Maeve. “What happens to your digital life after death?” *PewResearch Center*.

Fact Tank, 02 Dec. 2013. Web. 29 Nov. 2015.

<<http://www.pewresearch.org/fact-tank/2013/12/02/what-happens-to-your-digital-life-after-death/>>.

Since a large portion of the population uses social media, this short article discusses the widespread implications of policies technology companies are formalizing and putting in place in the event of an account owner’s death. It outlines specific policies for some of the most prominent social media providers such as Twitter, Facebook and Google. The article also discusses how management of social media accounts of those deceased is further complicated by specific laws in some states that govern access to digital assets upon someone's death.

This article provides valuable information to people on how to navigate the laws and social media policies currently regulating taking care of someone's digital estate assets. It also is helpful to know what the current trends are for specific websites, as well as how the government is addressing the rising issues associated with unplanned for digital estates. Knowing this will help make it easier to either plan a personal digital estate, or to try to take over one that had no planning (if possible).

Hagan, Abena. “Secure Your Digital Legacy By Planning Ahead.” *The Digital Beyond*.

The Digital Beyond, 31 July 2014. Web. 22 Nov. 2015.

<<http://www.thedigitalbeyond.com/2014/07/secure-your-digital-legacy-by-planning-ahead/>>.

Yahoo Japan launched a new service called Yahoo Ending that offers end-of-life solutions for the “digital legacies” that people leave behind. Since people spend a significant amount of time online through their devices (using social media, storing their personal information, accessing accounts, creating digital photo albums, managing media libraries, and more), it is crucial that those digital aspects of people’s lives can be managed and preserved for the long term. Much of people’s online lives now can be considered assets and need to be considered in their planning. Also, proper security measures need to be put in place to protect their information.

Yahoo is just one of many companies that recognize value of people's "digital legacies," which tend to live on even if a person does not. Heirs, beneficiaries, or other elected representatives must be designated rights to those remaining digital spaces so they can be managed, updated, maintained or transferred somewhere else. Laws are still being developed on how to respond to the ever-growing need for digital assets management, but Yahoo Ending is one service that looks ideal for beginning the process of doing so.

Carroll, Evan. "Facebook adds Legacy Contacts to address digital afterlife issues." *The Digital Beyond*. The Digital Beyond, 12 Feb. 2015. Web. 22 Nov. 2015.

<<http://www.thedigitalbeyond.com/2015/02/facebook-adds-legacy-contacts-to-address-digital-afterlife-issues/>>.

Just recently Facebook made changes to account user options in consideration of their digital legacy needs. This added functionality allows account holders to designate certain people as "Legacy Contacts," which are their chosen caretakers or beneficiaries. In the event of the account owner's death, the Legacy Contacts will be able to access the account to further manage it, or to place a "Remembering" designation on the page. Legacy Contacts can continue to approve friend requests, change the user's profile, pin posts, and download an archive of the user's content since the account originated (including photos, posts and profile information). Account holders may also designate that their Facebook profile be permanently deleted upon death.

The step Facebook has taken further expands users' choices in their management of their digital lives. The article goes on to explain specific steps to set up Legacy Contact, with screenshots of the menus to access the steps to set it up on mobile devices.

Again, this is valuable information to have for a specific website's policies to better assist in creating a digital estate.