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Identifying Individual and Institutional Motivations in Personal Digital Archiving

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Abstract: Personal digital archiving (PDA) is a relatively new field. As it has developed, two distinct personas have emerged: the individual person, seeking to capture and archive their own or someone else's personal digital materials; and the institution-including museums, libraries, and archives-attempting to acquire and manage personal digital materials. In doing so, institutions also advocate for the preservation and management of personal digital archives and digital file management practices held in private hands. However, individuals and institutions make different choices in terms of curation and management, based on skills, knowledge, purpose, function and economics. Understanding these differences can aid institutional support for personal archives, as well as help to build collaborative frameworks to help personal and institutional differences be better understood. This paper identifies the similarities and differences in motivation and approach between individual and institutional practices and perspectives in PDA.

Keywords: Personal digital archiving; Personal archives; Personal information management; Archive management.

1 Introduction

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Consider the following scenario: A popular artist recognizes that she should keep track of her materials, correspondence, and photos so that she has a record of her work. She keeps her files in a self-created organizational system, with many folders and sub-folder that make sense to her personally. The system works for her most of the time, and she can find her own files and photographs through browsing. As with many computer users, the organizational system used is not 100% consistent but it is good enough for her purposes. As she reaches retirement, the university where she went to school asks whether she will consider donating her digital archive to the university libraries. She agrees. She copies her files and folders to

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an external drive and provides the copy to the libraries. Shortly thereafter, she passes away. The library team that then works with the artist's personal archive must make several decisions about managing and preserving a body of work. These decisions will be considerably different to those of the artist.

Appraisal decisions are made based on what role the personal archive plays within a larger collection, and include how best to preserve the materials and make them accessible, following professional and institutional policies, vision, standards and practices. Decisions encompass how to make sense of the artist's practice and work. Do they keep the organizational system of folders and subfolders as they are, to illustrate the artist's process, even if that is technologically difficult? Will they keep all included files, even those that are not seemingly relevant to the artist's professional work (as is often the case due to the volume of digital materials)? What about private materials that appear to have been included accidentally with the other materials? Will any of the choices make the archive easier or more difficult to access for anyone doing research using the artist's files? Because they are digital, will they be freely available online and, if so, was that the creator's intention? While these questions can be potentially answered by donor agreements, digital formats bring about complexities that do not always have easy answers. The library often adapts the systems created by an individual to meet their own needs and/or to meet the needs of researchers for the sake of preservation and access. However, adaptation means change, and the implications are not always entirely clear. More research and knowledge into the individual motivations, decisionmaking, and use of personal digital archiving systems is essential to informed institutional management of personal archives.

Personal digital archiving (PDA) is a field that has been gaining traction over 15 years (Tibbo and Jones; Marshall, Bly and Brun-Cottan; and Marshall, McCown, and Nelson). PDA intersects traditional archival practices in collecting manuscript traditions, and the field of personal information management (PIM). Discussions about how to capture "electronic personal recordkeeping" places PDA within a historical manuscript tradition as early as 1994 (Cunningham). Additionally, how personal archives contribute to collective memory has been

long discussed in the literature (Hobbs). Prominent Personal Information Management (PIM) researcher, Marshall, however, places PDA firmly within the PIM and a broader information management field (Challenges and Rethinking). Regardless of tradition and influence, PDA can encompass personal photograph digitization, web archiving, social media archiving, personal digital file management and tools, converting old file formats, lifelogging, and even saving voicemails and SMS texts. "In other words, personal digital archiving will boil down to nothing more profound than deciding what we should keep, how and where we should store it, and what sorts of work people will have to do to keep their digital collections alive" (Marshall, Challenges 97).

Over time, two key stakeholder groups have emerged in PDA: the individual (creators and/or custodian), and cultural institutions. Redwine points to these two groups as audiences in the Digital Preservation Coalitions publication, Personal Digital Archiving (2). Individuals involved in PDA seek to preserve personal digital materials relating to themselves or other individuals for personal reasons (Marshall, How). These are creators and custodians of personal digital archives or collections. Institutional stakeholders seek to acquire and preserve personal materials for an existing library or archival collection. In more recent years, institutions have developed educational materials and perform advocacy work related to PDA in order to connect with their communities (Gunn, xi; Milbrodt and Schreiner, 104; Redwine, 2). Both groups are motivated to manage and preserve archival materials. However, individuals and institutions make different choices in terms of curation and management, based on skills, knowledge, purpose, function and economics. In this paper, I present my work on identifying the motivations of these two stakeholder groups in relation to PDA through an analysis of the literature, and discuss their convergence and divergence. This work presents an initial foray into exploring individual motivations that can inform institutional management of personal archives. The goal is to identify possibilities for greater collaboration and inform education, promotion, tool development, and resource building for future personal digital archivists who may be creators, custodians and/or professionals working in cultural institutions.

The next section defines PDA. The following sections presents the outcome of the literature review identifying and explaining 7 categories of motivation. A brief discussion of their convergence and divergence follows. The conclusion presents a summary and points to the need to establish better guidelines and procedures for institutional archives that intake personal digital collections.

2 Personal Digital Archiving Definition

For the purposes of this study, personal digital archiving is defined as the exploration of digital file curation and preservation by individuals, families, groups, or organizations, focusing on materials of a personal nature. Marshall explains PDA as deciding "what we should keep, how and where we should store it, and what sorts of work people will have to do to keep their digital collections alive" (Challenges, 97). Gunn states that PDA "refers to the collection, management, and preservation of personal and family materials created in digital media" (xi). Redwine similarly defines PDA as "how individuals manage or keep track of their digital files, where they store them, and how these files are described and organized" (2).

Personal digital archiving is informed by and related to both personal archiving in general and personal information management (PIM). PIM has a more well-defined research history than PDA and suggests a slightly different focus. PIM studies focus on strategies, actions, and approaches, often with less attention paid to motivation, connection, and personal need (John et al., 9). PDA takes a more user-focused approach, as it focuses on the personal aspects of digital archive management more than PIM. PDA research often focuses on community and preservation that leans towards traditional archival processes and management, with often slow systematic methods of curation (Kirk and Sellen, 10:4-10:7). PIM research however focuses more on understanding how people manage their materials so that it can streamline and improve outcomes or meet immediate needs (Marshall, How, 57).

Individual and Institutional Motivations in PDA: a Literature Review.

Analysis of literature highlights 7 categories of motivation. The categories are: self-definition; responsibility or adherence to mission; motivation from available tools of knowledge; self-interest, including practicality; connection with the past and future; sentimental motivation and designated importance; and Accidental Methods. Each motivation has related approaches, and many overlap, fitting into multiple categories. Some categories apply only to individual motivations, some to institutional, and some to both.

2.1 Self-Definition

Creating and preserving personal archives is an act of self-definition for some individuals (Kirk and Sellen, 10:16–10:17). Creators may shape the image of themselves

in a personal archive through curation and archive design. Individuals who either destroy materials from their own collections or highlight pieces to enhance themselves or certain qualities seek to solidify the image of themselves that future researchers will see (Douglas, 35). Individuals may choose to retain only positive items, or items that make them look good—for example they might throw away photographs from a period where they did not like how they looked.

Self-definition happens even when there is no conscious curation. Individuals are constantly creating themselves as they create personal digital archives. Creating digital materials, such as websites, blogs, or videos, can be a connection to self (Copeland, 1295). Krtalić, Marčetić, and Mičunović also point to technology as a means of personal expression, with the many tools and platforms offering nearly unlimited ways to be creative through digital means (n.p.). Kaye et al. define identity construction as a reason for keeping archives, including digital archives (279–280). "Another important goal of archiving, then, is to show to oneself or others who the archiver is, what role they play in their organization, what their achievements are, and what their interests are" (Kaye et al., 279).

Heritage organizations are unlikely to make PDA curation choices based on self-image. Institutions and organizations will never be as emotionally attached to a collection as an individual is to their own materials. This difference could hypothetically create conflicts in approach. What if a library is assisting a living individual with the creation or capture of a personal digital archive? Will their approach side with the desires of the individual or an attempt to ingest a complete archive? Will the push to include more if there is historic or local relevance involved? Most library collection development guidelines do not address this sort of complex issue.

While the libraries and archives themselves may not experience self-creation in the PDA process, individual information professionals might. Milbrodt and Schreiner suggest a personal-professional self-definition for librarians and archives working with community PDA projects (104). These professionals are part of community projects that apply to them and may be considered co-creators of many community personal archives (Douglas, 35). They may assist with projects in a way that is personal enough to lead to self-definition, and possibly even creative personal curation. For example, they may consciously or unconsciously highlight their family's involvement in a historic event while digitizing neighborhood oral histories.

2.2 Responsibility or Adherence to Mission

A recurring motivation identified for both institutional and individual involvement in PDA activities is responsibility or obligation. John et al. include sharing with colleagues as a reason for archiving files (44). Copeland lists having evidence and desire to keep paid items as two motivations for saving digital files (1295). All of these could be viewed as responsible actions: the individuals do not want to lose items that they should maintain out of obligation. Insurance paperwork, for example, may be kept because it is the responsible thing to do. Keeping high priced items or other items of value may similarly fall into responsible action. Kirk and Sellen discuss fulfilling duty as a motivation in keeping physical items that were handed down from relatives. The authors additionally point to the sentimentality that people feel for digital objects, suggesting that a sense of duty could create a desire to keep things (10:25-10:27). That being said, responsibility may or may not be as strong of a motivator as personal attachment and sentimentality. Individual approaches to preserving digital archives retained due to responsibility may fall into the less thorough standards that Marshall defines as medium value subcollections (Challenges, 103).

For institutions like libraries, responsibility may take the shape of adherence to the mission of the organization. As King points out, libraries and archives are mainly service organizations and should have a regard for what happens to culturally and socially important materials (573). Libraries often have missions that require them to serve a specific population, while also preserving or providing access to materials (John, 159; Redwine, 4–5). Adherence to mission certainly informs approach for information professionals, and causes related conflicts. The conflicting librarian responsibilities of protecting privacy and providing access, for example, are at odds with one another when considering many personal digital archives. Privacy can be a huge concern when libraries take over a personal digital collection. Privacy concerns related to archival acquisition are nothing new. However, personal digital archives are more easily shared and reproduced and may have hidden information in the form of embedded metadata. In her keynote at the PDA 2017 conference, Kim Christen indicated that this was a large issue for ingesting new digital materials. Protecting patrons was obviously an important aspect but patrons often wanted to turn over a large digital collection that had not been well curated to remove potentially sensitive data.



2.3 Motivation from Available Tools and Knowledge

People considering personal digital preservation projects may decide on the scope or scale of a project (or even whether to pursue it) based on available tools and previous knowledge. Knowledge, of lack of knowledge, can change both motivation and approach. For example, feeling that a project will be too difficult may prevent people from pursuing it. Sinn, Kim, and Syn point to the amount of time needed to curate and manage digital archives as a challenge for individuals (229). The researchers report that many individuals acquire more digital storage to keep larger, unmanaged archives rather than spend time curating their own files. Marshall reports similar findings (Challenges, 98-99). Keeping everything rather than managing it may be the result of not having access to or knowing about better tools and methods. Whittaker, Bergman, and Clough found that family photo organizers preferred basic, built-in computer software to manage their personal archives (39). Using what is built-in and readily available may indicate a lack of knowledge or resources.

If individuals do seek out resources, PDA is also not limited to the academic literature. Because individuals participate in personal digital archiving without even being aware of the term personal digital archiving, they will likely find the many online and print resources devoted to related subjects and aimed at a general usership. Searching YouTube for file conversion, file organization, or computer backup will all yield results in the hundreds. Personal digital archiving resources include thousands of videos, tutorials, articles, and web pages. Not necessarily academic in nature, these items nevertheless inform many if not most people engaging in activity that falls under the definition of PDA.

Despite the volume of available materials, PDA researchers report that individuals are still very bad at maintaining their own archives (Marshall, Challenges, 100; John et al., 38-39). This may be due to a variation in quality of online resources that are not provided by knowledgeable sources. However, Kaye et al. identified that the academics in their study did not generally have digital backups, assuming they could find copies of things elsewhere if they experienced data loss. This was identified as inaccurate (282). Academics would hopefully know how to identify reputable sources, implying that perhaps they (and other individuals) never look for instruction on PDA.

Heritage organizations offer help to individuals via outreach, online materials, reports, and advocacy. However, approaches for managing digital materials in a library

versus in a home or office will be inevitably different. For example, tools developed throughout history to manage personal archives were often intended to manage materials about historical figures rather than everyday people who might be the subject of personal digital archives (Sinn, Kim, and Syn, 222). How might this affect the effectiveness of PDA instruction? Individuals do not have knowledge of or access to the systems, descriptive methods, and tools that libraries use to manage digital assets. Yet, formal guidance for individual PDA practitioners is developed from the collection management experiences of librarians and archivists. The Library of Congress, a strong proponent of PDA, developed its own recommendations from adapted versions of its own internal practices for managing digital files (Ashenfelder, 35). "The question is, how relevant are these best practices to the consumer at home who has neither the resources, inclinations, skills, nor time to apply them?" (Marshall, Challenges, 107). It seems likely that library-born methods fall short of meeting the needs of individuals with no foundation in library methods.

As part of their mission to preserve archives, heritage institutions depend on professional best-practices to manage incoming materials, including personal digital archives. These serve an important purpose internally. Knowing these may be insufficient to handle personal digital materials is the first step in developing better tools and outreach. Even then, it will be a challenge to bridge the gap between the knowledge of individuals and professional PDA practitioners.

2.4 Self-Interest, Including Practicality

Self-interest is a large part of why people retain digital objects. Individuals keep things for a wide variety of reasons. Keeping anything for later use, access, or sharing could be considered self-interest. This may include protecting themselves by retaining evidence of finished work that has not been paid, or retaining financial records to protect themselves from loss. Beyond evidence and loss prevention, works in progress, items used everyday, and items we will want to reference in the future are all things we may retain for practical reasons (Copeland, 1295).

Practicality in terms of future access is a large parts of self-interest collecting, and planning for long-term access to materials, whether personally or monetarily valuable, is a large part of PDA. Individuals in multiple studies indicate that they choose to retain materials for future access or practical recall (Marshall, Challenges, 103–107; Marshall, How, n.p.; Redwine, 2). The Library of Congress similarly cites fear of loss as the primary reason that many

individuals asked for assistance with digital files (Ashenfelder, 32). Protecting personally important materials from loss may be seen as self-interest or practicality depending on the point of view.

Institutions and information professionals also have self-interest. Gunn's seemingly altruistic description of librarians and archivists helping others could also be self-serving (xi); all personal materials, especially those of local or historical interest, might 1 day be acquired for preservation at a library or archive. As such, information professionals who represent institutions have a measure of self-interest for themselves and future archivists who might have to manage personal materials down the road. Additionally, they may want to acquire or manage a personal digital archive in a certain way that highlights their institution. For example, they may choose to digitize the personal writings of a famous author and make them freely available online, while not giving a less prominent personal digital archive the same access opportunities. While there are many reasons why that might be a good choice, self-interest for the organization is likely involved in the decision.

How does self-interest affect approach for individuals? Ideally, the relationship with self-interest would translate into better digital management strategies to prevent loss. However, a study results reported by Sinn, Kim, and Syn indicate that individuals participating in personal digital archiving thought that losing digital information was more likely than losing physical items, and that in turn did not compel people to preserve more (227). Marshall does indicate that we do prioritize more diligently when we place a high value on specific digital items (Challenges, 103). So perhaps the goal should be to establish value and prioritize preservation based on the self-interest related to those items first. Those who argue for keeping a large archive may cite perceived practicality, wherein we are aware that we do not know yet what value they will serve in the future. Marshall explains that "it is inherently difficult to anticipate future value even among professionals trained to evaluate and discard" (*How*, n.p.). This may lead to a hoarding approach in both individual and institutional archives. Here, archives can hopefully fall back on policy. However, individuals who perceive that any of their digital objects could be important or needed later may be compelled to keep it all in the name of self-interest.

2.5 Connection with the Past and Future

After self-definition, connection with the past and future may be the most personal aspect of PDA for some

practitioners. Libraries and other heritage institutions also bridge the divide between preservation of historic materials and planning for the future. Connecting with the past through a personal digital archive might mean retaining and preserving family materials or photos of loved ones. Retaining these items can remind individuals of a time or place, linking the item to nostalgia and memory. Connecting with the future through PDA includes materials retained to pass on or those that are kept for posterity. Sharing materials with others, or retaining materials with a plan to share them later, is an act of connection to the future. Copeland identified plans to share and connection to family as reasons individuals might save digital objects (1295). Reasons were categorized as personal, rather than functional, though they could be both. Preventing the loss of memories is identified as a motivation by Kirk and Sellen. More specifically, the authors suggest that some computer users store digital materials so that they do not have to remember things-they can depend on the archive as a reminder (10:16).

How does the desire to connect with the past or future affect approach? For items of memory and nostalgia, some items may have little value after the collector's lifetime. If an individual purposefully decides to establish context to nostalgic items and memory links, they might make this information available, but most people are unlikely to think in those terms. Kirk and Sellen identify cases where materials that were not necessarily of personal value were retained because they were recognized as being important to posterity, to be handed down or available to the next generation (10:16). Institutions have become better at recognizing what easily-attainable current items may later be important. Perhaps that is why some have a strong interest in PDA; Personal digital archives that are preserved in an accessible way are poised to play an important role in a future where very few physical personal documents are likely to exist.

2.6 Sentimental Motivation and Designated Importance

Sentimental attachment or designated importance are additional reasons for retaining digital items in a personal archive. Though it may seem strange to some, Kirk and Sellen clearly identify that people feel sentimentally attached to many digital objects, including photos, videos, work, emails or other correspondence, and artwork (10:11). Clearly all of these might be connected to similar motivation around connection to the past. They certainly overlap, but sentimental object need not be old or related

to a memory. For example, a story that someone began writing in the past may have sentimental value to them, although there is no memory of that time period attached to the object. Additional reasons for saving digital items with sentimental motivation include connection to self, emotional attachment, and retaining something that is a work in progress (Copeland, 1295).

Marshall's identified categories of value for digital materials may apply to individuals or institutions. Known high-value items are those identified by the archivist as personally or financially valuable and, as such, they are often prioritized for preservation (Marshall, Challenges, 103). Medium and lower value subcollections are usually included if individuals do backups and are either preserved through continued use or general inclinations to keep them. Some or total loss of those items is usually seen as acceptable, according to Marshall. (Challenges, 103–104). This implies that individuals will prioritize personally valuable archive items first.

As with connection to the past and future, personal relevance may need context in order to have long-term significance in PDA. Subjective perception plays a role in retention of materials (Dengel, 2). "The decision about what, where, and how information is stored is always done by individuals with their own subjective perceptions and priorities as well as by the limitations of the file system" (Dengel, 2). In matters of personal digital archiving, subjective perception will affect project viability and accessibility differently for individuals than institutions. Individuals may have a perceptive organizational style that makes sense to them, and only them. They may further have goals that are personal and perhaps even not logical. Yet, as the primary user of their own system, the individual may not encounter any problems with their home-grown system; it works for them, since they built it for a specific purpose and with specific personal knowledge.

This is a challenge for heritage institutions. Institution—be it library, archive, or museum—may struggle with subjective perception and sentimental choices, for a variety of reasons. First, the organizations must manage their own group perceptions and differences in creating a management system for the personal digital archive in question. Second, a personal digital archive ingested into an existing organizational archive will be bound by the goals, structure, and interest of that organization. This means that, while individuals may intend to keep their personal archive only for their lifetime and personal use, libraries may intend to keep and preserve the same materials for the foreseeable future; the aims may be different, leading to differences in means and approach. Third (and

perhaps most challenging), they must also organize and manage with their end user in mind. Since most libraries and archives serve a public audience, consideration for how to organize and describe materials for accessibility has long been a topic of study, with common options like Library of Congress bearing obvious flaws (Walsh, 328). Yet, personal collections are as diverse as people themselves. A large personal archive that embodies the diverse interests and knowledge of just one person can be challenging to classify under one or even multiple subjects. Most famous individuals whose papers are included in archives are assigned a small number of subject headings for their most notable involvements and achievements: a limitation to access to be sure.

Subjective perception contributes to sentimentalitybased curation decisions, presenting numerous long term challenges. In an individually managed archive, where someone is building materials for personal use only, subjective perception may not be an issue: the individual collects what they consider important, whether for sentimental or other personal reasons. However, an institution is unlikely to recognize which items held sentimental importance without designation from the original owner. This challenge would change the approach of any group or even a second individual who attempts to manage materials from an archive that they themselves did not build.

2.7 Accidental Methods: No Motivation

Ill-defined or lack of motivation are an issue encountered primarily by individual personal digital archivists, although institutional practitioners may occasionally struggle with similar issues. In her report to the Digital Preservation Coalition (DPC), Redwine explains, "People keep personal archives for reasons that may be simultaneously sentimental, practical, and even accidental" (2). This usually amounts to either keeping everything, or keeping whatever gets set aside in the moment. The lack of time devoted to organization is more of an individual issue; while libraries certainly can use more staffing they are professionally managing materials rather than doing it as a hobby or side task.

Marshall indicates that even those who don't just keep everything make problematic curation decisions, so accidental collecting would still be an issue. "Most computer users realize that they delete items in a somewhat arbitrary manner," Marshall reports (Challenges, 100). For example, Marshall observed academic researchers deleting files without looking at their contents, depending solely on file name and and date. She notes that many

say that they are aware that they have no clear methodology but that they plan to eventually clean things up and become more fastidious. Many experience loss due to lack of purposeful preservation activity (*Challenges*, 100–102). Marshall writes that, "Despite the acknowledged importance of digital personal information, it is difficult to convince many people of the urgency of this problem" (*How*, n.p.). She is speaking primarily of the people who do not do much, or anything, to manage and protect their personal materials. In another article she calls this *benign neglect* (*Rethinking*, n.p.). Their non-participation can easily result in a haphazard collection or materials that they either stored without purpose or simply did not delete once they received it.

No matter how thorough an individual is with their personal materials, the great influx of digital information means that all of us likely have some materials that are retained accidentally (*How*, n.p.). Ashmore, Craggs, and Neate also make a case for accidental collections, but suggest it is part of institutional practice as well. Their discussion of "messy" practices historically common in some archives applies to digital and non-digital materials. The authors point out that things in archives may be intentionally or unintentionally preserved, yet may still have value in either case (82). Though the paper is discussing personal archives overall, electronic materials preserved and discovered later may have similarly late-defined value.

In a study by Krtalić, Marčetić, and Mičunović, the researchers found that students knew about the value of backing up and managing digital files in a meaningful way (n.p.). However, they did not follow through. When discussing migrating digital items from old media, one participant responded, "I do plan to migrate but I never actually do it" (n.p.). Student methods of deleting unwanted or unneeded files was also haphazard, with about half of participants deleting documents occasionally. Similar to Marshall's *benign neglect*, the lack of any digital intervention, though digital materials will continue to be created, makes for many personal digital archives with accidental content.

3 Discussion

"The decision about what, where, and how information is stored is always done by individuals with their own subjective perceptions and priorities as well as by the limitations of the file system" (Denel, 2). In matters of personal digital archiving, subjective perception will affect project viability and accessibility differently for individuals than

institutions. Individuals may have a perceptive organizational style that makes sense to them, and only them. They may further have goals that are personal and perhaps even not logical. Yet, as the primary user of their own system, the individual may not encounter any problems with their home-grown system; it works for them, since they built it for a specific purpose and with specific personal knowledge.

Conversely, the institution—be it library, archive, or museum-may struggle with subjective perception, for a variety of reasons. First, the organizations must manage their own group perceptions and differences in creating a management system for the personal digital archive in question. Second, a personal digital archive ingested into an existing organizational archive will be bound by the goals, structure, and interest of that organization. This means that, while individuals may intend to keep their personal archive only for their lifetime and personal use, libraries may intend to keep and preserve the same materials for the foreseeable future; the aims may be different, leading to differences in means and approach. Third (and perhaps most challenging), they must also organize and manage with their end user in mind. Since most libraries and archives serve a public audience, consideration for how to organize materials for accessibility has long been a topic of study, with most options bearing obvious flaws (Walsh). Yet, personal archives are as diverse as people themselves. A large personal archive that embodies the diverse interests and knowledge of just one person can be challenging to classify under one or even multiple subjects. Most famous individuals whose papers are included in archives are indeed assigned a small number of subject headings for their most notable involvements and achievements.

Institutions will attempt to use existing structures and best-practices from the information profession. Bentley's "established principles" is confusing, though, since there are no clear established principles for PDA (69). Instead, there are many opinions about the right or best way to apply structure to a thing that is basically built to be unique. As Becker and Nogues discuss, most of the writers in their study would welcome assistance with PDA activities but never received any such assistance (482). There may be some question of whether librarians and archivists (especially those in academia) are even prepared to assist others with their personal digital management. PDA is an area that sometimes dramatically shows this, as many librarians and archivists continue to promote and discuss best practices that focus on their own motivations. For example, they are as a group much more aware of tools, software, and metadata options that are only financially feasible to organizations ad collections of institutional size. This makes sense given their roles within their institutions: their mission is usually to protect institutional collections. But then why are they expected to offer advice and develop best-practices for individuals who use different systems and methods?

Public libraries make attempts on a regular basis to assist the public through classes and outreach. Milbrodt and Schreiner discuss the Queens Memory project, a Queens, New York Library (United States) initiative to preserve personal heritage items digitally highlighting the role of library and archive outreach projects that directly connect archivists and community (103-105). However, projects can face resourcing issues including funding and staffing. In addition, their efforts are often reactive rather than proactive: they are attempting to teach computer users how to manage things they started doing a long time ago. As such, much of the efforts are spent on trying to fix existing broken systems rather than building something new in the right way. In school libraries and university information literacy classes, basic file management techniques are often overlooked or excluded with the assumption that students and faculty already have basic knowledge in this area (which may or may not be true in reality). File management assistance in academia is most often focused on research data management for academics. Again, this makes sense given the objectives, but it does not address the lack of knowledge for things like basic organization, file naming, backing up, and other key information. Approach to PDA for individuals, then, will continue to be home-grown solutions whether or not information professionals decide on best-practices to promote.

Kim's suggestions about personal collections being tied to self-image implies that motivation for individuals may be as wide as the emotional scale related to that very personal factor (68). Individuals may choose to retain only positive items, or items that make them look good—for example they might throw away photographs from a period where they did not like how they looked. Libraries are unlikely to make that sort of curation choice. However, what if they are assisting a living individual with the creation or capture of a personal digital archive? Will their approach side with the desires of the individual or an attempt to ingest a complete archive? Most library collection development guidelines do not address this sort of complex issue.

Institutions may additionally struggle with the ingest and management of social media as part of a personal digital archive. As Sinn and Syn discuss in their exploration of Facebook as a collection, social media is part of a personal archive (95). A significant divergence takes place between the needs and goals of institutions and when it comes to social media, web archiving, and other nondocument pieces of personal information. Individuals may consider these to be crucial to their collection, but they are difficult to capture. Only some social media platforms offer export functionality. Once again, individuals can choose to use a variety of ad-hoc methods to capture web media but institutions may not have the password access or point-in-time knowledge to capture the same media. This again puts the power in the hands of the original individual, who may not know the best way to capture something for long-term access. Once taken over by an institution, materials captured only once in a way that isn't ideal may have to remain the way they are. Worse, they may be in proprietary or lossy formats that degrade or prevent access.

The challenges inherent in personal digital archive management fall mainly on the institution, as they must react in most cases to an already existing collection. Their approach in this case must fit with their stated goals, usually including access and preservation. The approach of individuals may never have considered those factors. Institutions might approach PDA proactively by developing best-practices that are practical to the individual user, though these may be different than library and archive bestpractices. They might also engage patrons and students early and often to encourage better digital file management.

4 Conclusion

The main actions of choosing what to keep, how to manage it, and how to preserve it seem clear enough. However, personal digital archiving is much larger and more complicated when viewed closely. It encompasses issues that are as diverse as the individuals involved and the strange and creative collections they make. Individual motivation and approach will never be the same as institutional motivation and approach, though they can learn from one another. Individuals can take advantage of the research and recommendations from information professionals, taking what is relevant and continuing to develop ad-hoc personalized solutions. Institutions do not have the same control or choices as individuals but can learn from those personal choices in order to build flexibility into their methods. They can additionally support individuals and set reachable standards that might be applied in personal digital archive settings in the future. Both groups can gain context for their own processes by understanding the motivations of the other group.

Individual motivations can be categorized as self-definition, responsibility, motivation from available tools and knowledge, self-interest/practicality, connection to the past and future, personal sentimentality and designated importance, or accidental/non-methods. Individuals displayed a varied approaches based on their motivation. Individuals displayed different use and understanding of technology, as well as different collection creation decisions inevitably resulting in personalized approaches. Curation choices by individuals may be inconsistent due to self-image and personal bias. Without policies to rely on, individuals may struggle with what to keep and are more likely to keep everything. Items that are retained for personal reasons, such as memory links, need to be contextualized in order to be preserved past the creator's lifetime. Overall, management of materials collected in personal digital archives by individuals are more likely to be inconsistent, depending on the financial and educational resources of the individual.

Institutional motivations fall under the categories of adherence to mission, motivation from available tools and knowledge, self-interest/practicality, connection with the past and future, designated importance, or accidental/ non-methods. The institutional approach is more focused on curation and organization, with higher dependence on professional technological solutions, tools, and metadata. Institutional perspectives and approaches to personal digital archiving can be limited by professional bias, leading to regimented approaches that may not capture a holistic view of a personal archive. Institutional approaches may be more focused on curation consistency and organization following professional or organizational goals and guidelines. Whether preserving an archive or teaching PDA to patrons, information professionals will usually promote best practices that are rooted in library and archive management approaches. However, bestpractices may not apply to the diverse needs and limited resources or individual practitioners. Institutions have more conflicts and challenges as they attempt to follow their own policies and best practices, which are sometimes in conflict when considering personal digital materials. Institutions may additionally struggle with personal items out of context, such as items retained for memory or nostalgic purposes that cannot be fully understood after the collector is gone.

One prominent implication of these results is the need to establish better guidelines and procedures for institutional archives that intake personal digital collections. You cannot ask patrons or future PDA donors to redo their management system, it is not feasible. And yet, future digital collections may not be accessible without

intervention. Another implication of this research is the constant need for review in methods presented by information professionals to individuals. Programs are changing to meet individuals at their technological level, but more can be done. As such, there are also opportunities. Comparing the needs of all PDA participants, as well as where they diverge, is important for growth and change.

References

- Ashenfelder, Mike. "The Library of Congress and Personal Digital Archiving." In *Personal Archiving*, 32–45. Washington, DC: Library of Congress, n.d.
- Ashmore, Paul, Ruth Craggs, and Hannah Neate. "Workingwith: Talking and Sorting in Personal Archives." *Journal of Historical Geography* 38 (2012): 81–9. doi:10.1016/j. jhg.2011.06.002.
- Becker, Devin, and Collier Nogues. "Saving-Over, Over-Saving, and the Future Mess of Writers' Digital Archives: A Survey Report on the Personal Digital Archiving Practices of Emerging Writers." *The American Archivist* 75 (Fall/Winter 2012): 482–513. doi:10.17723/aarc.75.2.t024180533382067.
- Bergman, Ofer, Steve Whittaker, Mark Sanderson, Rafi Nachmias, and Anand Ramamoorthy. "The Effect of Folder Structure on Personal File Navigation." *Journal of the American Society for Information Science and Technology* 61.12 (2010): 2426–41. doi:10.1002/asi.21415.
- Christen, Kim. "Personal, Political, Public: Digital Archiving the Present." Presentation at Personal Digital Archiving 2017 Conference, Stanford University, Palo Alto, CA, March 31, 2017; available at http://library.stanford.edu/projects/personal-digital-archiving-2017/.
- Copeland, Andrea J. "Analysis of Public Library Users' Digital Preservation Practices." *Journal of American Society for Information Science and Technology* 62.7 (2011): 1288–300. doi:10.1002/asi.21553.
- Cunningham, Adrian. "The Archival Management of Personal Records in Electronic Form: Some Suggestions." *Archives and Manuscripts* 22.1 (May 1994): 94.
- Dengel, Andreas R. "Six Thousand Words about Multi-Perspective Personal Document Management." 2006 10th IEEE International Enterprise Distributed Object Computing Conference Workshops (EDOCW'06), Hong Kong, China, 2006, 62. doi:10.1109/EDOCW.2006.63.
- Douglas, Jennifer. "A Call to Rethink Archival Creation: Exploring Types of Creation in Personal Archives." *Archival Science* 18 (2018): 29–49. doi:10.1007/s10502-018-9285–8.
- Gunn, Chelsea. "Introduction," Introduction in The Complete Guide to Personal Digital Archiving, xi-xxii. Chicago: Ala Editions, 2018.
- Hobbs, Catherine. "The Character of Personal Archives: Reflections on the Value of Records of Individuals." *Archivaria* 52 (2001).
- John, Jeremy Leighton, Ian Rowland, Peter Williams, and Katrina Dean. Digital Lives. Personal Digital Archives for the 21st Century: An Initial Synthesis. British Library, 2010. Retrieved from http://britishlibrary.typepad.co.uk/files/digital-livessynthesis02-1.pdf.

- Jones, William, and Jaime Teevan. "Introduction." In Personal Information Management. Seattle: University of Washington Press, 2007.
- 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." Proceedings of the SIGCHI Conference on Human Factors in Computing Systems in Montréal, ACM, New York, NY, 2006: 275-84.
- Kim, Sarah, "Personal Digital Archives: Preservation of Documents. Preservation of Self." Dissertation, University of Texas at Austin Doctor, of Philosophy (August 2013). Available at https:// repositories.lib.utexas.edu/bitstream/handle/2152/21134/ KIM-DISSERTATION-2013.pdf?sequence=1&isAllowed=y.
- King, Rachel. "Personal Digital Archiving for Journalists: a "Private" Solution to a Public Problem." Library Hi Tech 36.4 (2018): 573-82.
- Kirk, David S., and Abigail Sellen. "On Human Remains: Values and Practice in the Home Archiving of Cherished Objects." ACM Transactions on Computer-Human Interaction 17.3 (July 2010). 10:1-10:43. doi:10.1145/1806923.1806924.
- Krtalić, Maja, Hana Marčetić, and Milijana Mičunović. "Personal Digital Information Archiving Among Students of Social Sciences and Humanities." Information Research 21.2 (2016). Retrieved from http://InformationR.net/ir/21-2/paper716.html.
- Marshall, Catherine C. "Challenges and Opportunities for Personal Digital Archiving." Chapter in I, Digital, Chicago: Society of American Archivists (2011), 90-114; available at http://www.csdl.tamu.edu/~cathycmarshall/I-Digital-Marshall.
- —. "How People Manage Information over a Lifetime." Chapter in Personal Information Management, edited by William Jones and Jaime Teevan. Seattle: University of Washington Press, 2007. doi:10.1.1.447.2772.

- ---. "Rethinking Personal Digital Archiving, Part 1." D-Lib Magazine, 14:3/4 (March/April 2008); available at http://www.dlib. org/dlib/march08/marshall/03marshall-pt1.html.
- Marshall, Catherine C., Sara Bly, and Francoise Brun-Cottan. "The Long Term Fate of our Digital Belongings: Toward a Service Model for Personal Archives." In Archiving Conference, Society for Imaging Science and Technology, 2006, v. 1 (2006),
- Marshall, Catherine C., Frank McCown, and Michael L. Nelson. "Evaluating Personal Archiving Strategies for Internet-Based Information." In Archiving Conference, Society for Imaging Science and Technology, 2007, v. 1 (2007), 151-6.
- Milbrodt, Natalie, and Maggie Schreiner. "Digitizing Memories and Teaching Digital Literacy in Queens, NY." Chapter in The Complete Guide to Personal Digital Archiving, 103–18. Chicago: Ala Editions, 2018.
- Redwine, Gabriela. "Personal Digital Archiving." Digital Preservation Coalition Technology Watch Report 15-01 (December 2015). doi:10.7207/twr15-01.
- Sinn, Donghee, Sujin Kim, and Sue Yeon Syn. "Personal Digital Archiving: Influencing Factors and Challenges to Practices." Library Hi Tech 35.2 (2017): 222-39. doi:10.1108/LHT-09-
- Tibbo, H. R., and P. Jones. "Minds of Carolina." In Archiving Conference, Society for Imaging Science and Technology, 2004, v. 1 (January 2004): 26-31.
- Walsh, John. "The use of Library of Congress Subject Headings in Digital Collections." Library Review 60.4 (2011): 328-43. doi:10.1108/00242531111127875.
- Whittaker, Steve, Ofer Bergman, and Paul Clough. "Easy on that Trigger Dad: A Study of Long Term Family Photo Retrieval." Personal and Ubiquitous Computing 14 (2010): 31-43. doi:10.1007/s00779-009-0218-7.



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