



Case studies

Integrating digital stewardship into library instruction: An argument for student (and librarian) success



Elizabeth Blackwood

John Spoor Broome Library, California State University Channel Islands, United States of America

Introduction

“Document(1).docx”, “Untitled Document”, and “exam final final.pdf” are more than just poor file names – they are symptoms of a broader problem that occurs when someone lacks personal digital stewardship skills. At its most trivial, personal digital stewardship is a set of skills that can make our lives easier; at its most critical, it is an equity issue that threatens our ability to access and retain information. As academic librarians, our responsibility is to constantly work to lower the barriers that impede access to information, a goal which is often accomplished through instruction and skill building. In this column, I argue that personal digital stewardship skills are vital to both student and librarian success. Libraries can forward success for both by implementing digital stewardship best practices into regular academic instruction.

Defining digital stewardship

At its broadest, digital stewardship includes all of the activities related to the care and management of digital things (McCurry, 2014), including the full life cycles of data in all formats, hardware and infrastructure that supports and renders data, and the preservation of everything in this list. With this definition as context, I focus solely on what I refer to as “personal digital stewardship” or the foundational skills and actions that users perform to manage their digital lives. These activities include:

- file and folder name creation
- avoidance of special characters and spaces in file names
- the creation of folder structures
- personal data archiving processes
- the creation of backups
- housekeeping and deletion of files

These actions are applicable to all disciplines of study or work and all levels of scholarship. Personal digital stewardship is a subset of “personal information management” (PIM). A popular subject amongst information professionals, PIM is often defined using William Jones' definition: the practice or study of the activities a person performs in

order to acquire or create, store, organize, maintain, retrieve, use, and distribute the information needed to complete tasks (Jones, 2007, 453). I separate the abovementioned list of tasks from PIM because many aspects of PIM are considered subjective to the user (Bergman, Beyth-Marom, and Nachmias, 2003, 873), whereas the best practices of file and folder naming have become standard practice for libraries and government organizations alike (Cron, 2017). Although these best practices have not yet become international standards, they have become necessary, taught skills for all types of work activities, especially those in academia.

An equity issue

First coined by Marc Prensky in 2001, “digital natives” are said to be individuals born after 1984 who have grown up actively using and learning with technology and digital tools (Prensky, 2001, 1). Prensky argued that this distinction fundamentally changed the way that young people learn. He also juxtaposed them with “digital immigrants” or those born before 1984, who he assumed to be less competent with digital tools and to possess different learning abilities. Most millennials who are currently in the workforce would probably agree that this assumption is true to some extent. However, research has shown that the idea of the digital native is a myth (Kirschner and De Bruyckere, 2017, 140; Margaryan, Littlejohn, and Vojt, 2011, 439), stating that these learning and skill-based differences are surface-level. Digital tools, be they word processors or the Facebook user interface, are learned through the acquisition of skill. Students who are currently matriculating acquired many digital skills at earlier ages than the generations that came before them, but they still require training to acquire, build, and improve upon those skills (Kvavik, 2005, 7.7).

I would go a step further to argue that the myth of the digital native is compounded as an issue of equity. The topic of digital skills in so-called “digital natives” has been linked to socioeconomic status, namely that students from historically underrepresented groups tend to display lower digital skill levels (Hargittai, n.d., 108). At my institution, California State University Channel Islands, a majority of students are from historically underrepresented groups, with first-generation students making up nearly 60% of enrollment in Fall 2019. The students that I have encountered are digitally savvy with specific platforms, such as

E-mail address: elizabeth.blackwood@csuci.edu.

<https://doi.org/10.1016/j.acalib.2019.102099>

Received 18 November 2019; Accepted 18 November 2019

Available online 22 November 2019

0099-1333/ © 2019 Elsevier Inc. All rights reserved.

social media and app-based communication tools, but often struggle with many basics that instructors and librarians take for granted. For example, I have witnessed students struggle to switch on a desktop computer because they have only or primarily encountered mobile technology such as cell phones and tablets. I have watched students struggle to understand where a file that they had just downloaded from the internet went after the download completed; this process is not something that is often replicated with mobile technology (i.e., most phones don't have a "download folder"). Although we cannot make assumptions about what tools our underrepresented students have encountered in their high school settings or at home, it is apparent in my experience that many have not built the basic digital skills that students from more privileged backgrounds often exhibit. While our students exhibit many digitally-savvy behaviors through their usage of mobile technology, we fail them if we assume that these skills are enough to meet the demands of academic life.

As librarians, it is our role to lower the barriers that stand between our users and the information that they seek. The information landscape is now fully digital; thus, the barriers to access often present as a gap in skill. Librarians regularly combat this gap through instruction, especially through digital literacy initiatives. The American Library Association (ALA) and the Association for College and Research Libraries (ACRL) have numerous useful frameworks and standards for digital and information literacy that help librarians lower barriers, but what good are they to our students without the skills to perform basic digital tasks and retain the academic documents that they create? Students' academic products represent their education and they desperately need to access and maintain them for their future careers. Without personal digital stewardship skills, we leave our students vulnerable to digital and academic catastrophe, via data loss, bit rot, and general disorganization. These academic catastrophes are completely preventable, unlike the many other difficulties that may come with being a student, especially a first-generation student.

A librarianship issue

The basic organization of digital files is a form of metadata creation. File names and folder structures build context and support access, whether the files are housed in an institutional repository or on a networked drive. One doesn't have to argue the importance of metadata to anyone in the library community – it is considered the standard best practice. Yet, this aspect of internal library work often goes unmanaged and neglected. This neglect costs libraries time, degrades institutional knowledge, and undermines our missions. Aside from the responsibility libraries have to students, as library employees, we owe it to ourselves and to our colleagues to manage our own digital files. I argue that implementing basic digital stewardship skills into the academic library instruction curriculum will benefit both our students and our colleagues.

Library work is often highly collaborative. We work together to produce drafts of policies, job descriptions, documentation, budgets, grant applications, statistical reports, and a variety of other digital products that represent the work that happens in our libraries and in the communities that we serve. These documents become the institutional knowledge that our administration builds upon. Bad file names, poorly constructed folder structures, and a lack of preservation action rots this institutional knowledge from the inside. As personnel turnover and retire, newer colleagues are pushed further from the institutional knowledge that they need to perform work, simply because they cannot find or decipher the digital information housed on servers and networked drives. Onboarding processes become more difficult and less effective without clear maps and folder trees of the information needed to perform work. Issues like these are preventable by implementing the basic metadata best practices that are standard in our field for digital collections, but often are lost on our own work. As librarians and library staff, we must begin to practice what we preach in order to serve our

communities and ourselves.

Perhaps these issues are caused by a lack of time. Perhaps some librarians have not received training or have no regular reminders to practice these basic skills in their own work. Both of these possible causes could be solved by integrating personal digital stewardship best practices into instruction sessions. Through the process of instructional design, librarians often partake in some combination of the following steps: analysis, design, development, implementation, and evaluation (Attebury, 2015, 308). These steps all contribute to one's professional development and continual skill building. Through the development, implementation, and evaluation of instruction sessions, librarians not only impart skills to students, but also support the improvement of their own skills on the subject. By marrying personal digital stewardship with instruction, librarians can serve both themselves and their students.

A time issue

As with many issues in libraries, time is the biggest challenge to confronting and correcting personal digital stewardship issues. The challenge presents in both instruction sessions and in daily work. As librarians are constantly asked to perform more tasks, both inside the library and around campus, we have to think critically about where we can make space for these best practices. Ultimately, we as librarians must be able to communicate the value added from implementing best practice into our work.

A variety of factors cause the time challenges that instruction librarians face in the classroom. The rapidly changing landscape of digital information constantly places new demands on sessions. Digital and algorithmic literacy concerns often take precedence, along with normal curriculum that includes database and citation instruction. It may seem impossible to add more content. Solutions to this might include conversations with faculty members to communicate the importance of personal digital stewardship to their students' success. The addition of these best practices can also serve as professional development for faculty members, as many have dealt with the ramifications of poor file name conventions from the students that they teach and in their own practice. At the curriculum level, libraries could include these basic skills as a piece of general instruction alongside citation development and database searching, making these skills an assumed aspect of library instruction. It can also be helpful to think critically and often about areas of instruction that can be consolidated or removed to maintain currency with the changes in the information landscape. Regular updates to curriculum can make space for the skills that students need for success.

Implementing digital stewardship best practices as institutional workflows also requires time and energy, both of which are areas where academic librarians are overcommitted. It may seem like a major time barrier to rename files that have previously gone unmanaged, but these challenges are not insurmountable. Many free tools exist to make these processes easier. Tools such as Renamer, Bulk Rename Utility, and PSRenamer provide for easy, iterative file renaming for all operating systems. By systematically replacing special characters, inserting prefixes, or adding versions, library workers can rename thousands of files quickly. It can also be helpful to use internal communication platforms, such as LibGuides or Wikis, to share links to these tools and other documentation about best practices. This can serve as a clear reference or institutional policy and can be used when onboarding new employees. The time commitment is most likely less than it seems.

However, these types of changes require buy-in from colleagues and administrators. Obtaining this buy-in can often feel like the bigger challenge. Communication and demonstration are key in solidifying buy-in. That communication may be a presentation in an all-staff meeting or dedicated time with a division head, where one describes the need for best practice within the internal workings of the library. Once in front of a dedicated audience, point to the authorities in the field who champion these best practices, such as the National Archives

and Records Administration and Library of Congress, as well as the many other academic libraries who have dedicated LibGuides to this topic (e.g., Princeton and Purdue). To demonstrate the problem, directly acknowledge a shared drive that is poorly organized or out of control. It can also be helpful to demonstrate file renaming tools and assist colleagues who may face barriers with technology or change. The most important piece of inspiring institutional change surrounding these best practices is to focus on solutions to the problem, rather than to accuse colleagues of creating the problem in the first place.

Conclusion

The neglect of personal digital stewardship in all aspects of library work hinders the students that we serve, twofold. First, if we do not teach the skills and best practices that our students need, they may not receive them anywhere else. Second, if we do not implement the skills in our own work, we lose productivity and efficiency that we could be directing toward service to our students. The issue is more complex and important than the triviality of file and folder names. As academic librarians, we must work to lower the barriers to information access; a gap in digital stewardship skills is a barrier to access.

References

- Attebury, R. I. (2015). Adult education concepts in library professional development activities. *New World Library*, 116(5/6), 302–315. <https://doi.org/10.1108/NLW-08-2014-0100>.
- Bergman, O., Beyth-Marom, R., & Nachmias, R. (2003). The user-subjective approach to personal management systems. *Journal of the American Society for Information Science and Technology*, 54(9).
- Cron, B. (2017). Best practices for file naming. *Records express: The blog of the chief records officer for the U.S. Government, National Archives and Records Administration*. August <https://records-express.blogs.archives.gov/2017/08/22/best-practices-for-file-naming/>.
- Hargittai, Eszter., Digital na(t)ives? Variation in internet skills and uses among members of the “net generation”. *Sociological Inquiry*, vol. 80, no. 1. pp. 92–113. <https://doi.org/10.1111/j.1475-682X.2009.00317.x>.
- Jones, W. (2007). Personal information management. *Annual Review of Information Science and Technology*, 41(1), 453–504. <https://doi.org/10.1002/aris.2007.144041011>.
- Kirschner, P. A., & De Bruyckere, P. (2017). The myths of the digital native and the multitasker. *Teaching and Teacher Education*, 67, 135–142. <https://doi.org/10.1016/j.tate.2017.06.001>.
- Kvavik, R. B. (2005). Convenience, communications, and control: How students use technology. In D. G. Oblinger, & J. L. Oblinger (Eds.). *Educating the net generation* (pp. 7.1–7.20). Boulder, CO: Educase. <https://library.educase.edu/-/media/files/library/2005/1/pub7101g-pdf.pdf>.
- Margaryan, A., Littlejohn, A., & Vojt, G. (2011). Are digital natives a myth or reality? University students' use of digital technologies. *Computers & Education*, 56(2), 429–440. <https://doi.org/10.1016/j.compedu.2010.09.004> (February).
- McCurry, J. (2014). Digital stewardship: The one with all the definitions. *The collation: research and exploration at the folder* <https://collation.folger.edu/2014/04/digital-stewardship-the-one-with-all-the-definitions/> (April 2).
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5) (October, MCB University Press. <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>).