

CUSTODIANS OF MEMORY: A HISTORY OF AMERICAN ARCHIVAL SCIENCE WITH
SUGGESTIONS FOR FUTURE DIGITAL PRESERVATION EFFORTS

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ABSTRACT

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The archive and the historian are symbiotically dependent on one another. The archive relies on the historian to make use of the records it houses, and the historian looks to the archive to reconstruct history. But can a historian responsibly reconstruct history when the archive is fraught with relativity and bias? This thesis serves two purposes; one, pulling from seminal archival science and collections management texts, it chronicles the monumental, intellectual changes to American archival sciences, theories, and institutions, and two, it shows how these early conversations pertaining to archival theories are both not far removed from digital preservation efforts and at times incompatible with the unique non-analogous problems created by web-born sources. But as this thesis argues, theoretical offerings are not always the most implementable for archives; the crux of archival science has historically and contemporarily been responsibility versus practicality, particularly in regard to appraisal theory. These problems exacerbate in the digital realm where the sheer amount of records and material produced by the second warrants extremely narrow but careful collecting. To not add to the overwhelming problem of digital appraisal theory, this thesis offers tangible solutions to help mitigate irresponsible collecting practices.

Keywords: digital preservation, born-digital, appraisal theory, archival science, archive

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CHAPTER 1

INTRODUCTION

Recent historiographical discourse contends that archivists, and their discretion, determine what the future will know about the past; who will have a continuing voice and who will be silenced.¹ And faced with pressures of space and financial constraints, archives and institutions have had to narrow their focus, historically favoring administrative records over collections documenting personal histories or social change. In the discipline of history, there is growing interest to revise narratives and include gendered, sexual, classist, and racial frameworks, so the implications of losing records of the ‘ordinary,’ of grassroots social movements, of the disparate experiences, should be at the forefront of discussions not only between archivists managing collections but of the historian whose goal for a truthful, responsible construction of history rests on the source bases that have survived.² So, while archivists, “as custodians of social memory...must take part in the creation of memory by the records they preserve,” historians, while pulling on humbling experiences from past historiography, must think about the future of archival collections to inform and hold archivists accountable to assure they do not lose sight of the foundational work of responsible collecting and adequately preserving the past and the present.³

Digital preservation is paradoxically a new frontier plagued with not-so-new questions regarding objectivity, impartiality, and bias in the archival sphere. Most of the literature exists in the theoretical, observing and explaining the archive in terms of authority, power, and remembering; postmodernist theory has entered the archival space and has deconstructed the

¹ Giorgio Agamben, *Remnants of Auschwitz: The Witness and the Archive* (Cambridge, MA: Zone Books, 2002), 7.

² Alana Kumbier, *Ephemeral Material: Queering the Archive* (Sacramento, CA: Litwin Books, LLC, 2014), 15.

³ Cheryl Avery, *Better Off Forgetting?: Essays on Archives, Public Policy, and Collective Memory* (Toronto: University of Toronto Press, 2010), xv.

notion of the archive as an objective, unbiased repository of knowledge untainted by human intervention. As pioneering archival theorist Terry Cook asserts in his article, “Evidence, memory, identity, and community: four shifting archival paradigms,” the archive, and the archivist, are caught in a moment of tension in the profession: is the archivist a guardian of evidence or a custodian of memory?⁴ Cook argues that the role of the archive and the archivist are at a point of change where the objective “selfless devotee of Truth the modern world produces” is becoming an interpreter or mediator of memory making. Though older theory insists that these objectives are inherently at odds with each other, Cook furthers that either are worthless without the other.

Spurred from T.R. Schellenberg’s criticism of records management and appraisal theory in the 1950s, archivists have known that they are the deciders of what records are preserved and accessible and which are destroyed or neglected.⁵ But, as Cook argues, the inevitability of injecting one’s own values, experiences, and education into those choices makes discretion both very necessary and potentially catastrophic to the remembering process. And this discretion manifests in a multitude of ways: “which creators, which systems, which functions, which programmes, which activities, which ideas and discourses, and indeed which related records, will get full, partial, or no archival attention in all archival processes, from system design requirements to appraisal and acquisition, from description in all manner of finding aids to preservation choices, from types of reference services provided to document selections.”⁶

Concern constructed out of our postmodern moment has materialized in a multitude of

⁴ Terry Cook, “Evidence, memory, identity, and community: four shifting archival paradigms,” *Archival Science* 13, no. 2 (July 1996): 106.

⁵ Theodore Schellenberg, *Modern Archives, Principles, and Techniques* (Chicago, IL: University of Chicago Press, 1968).

⁶ Cook, “Evidence, memory, identity, and community,” 102.

scholarship that confronts conspicuous absences in the archives including, gender, race, class, sexuality, religion, etc.

Not far removed from conversations about the study of cultural memory, the archive has become a space recognized for its ability to construct memory. Not only does it reveal histories through the records it keeps (which is often the only thing historians study), it also reveals (often more ambivalently) the remembering process—where we place importance, whose voices are consciously silenced and whose voices remain—that is very much informed by our contemporaneous moments. By studying accessioning policy, the construction of collection scopes, and the internal dynamics behind archivists’ discretion, a different history emerges that perhaps most greatly resembles Jan Assman’s term “mnemohistory.”

Jan Assman, a self-identified Egyptologist, coined a term *gedächtnisgeschichte*, translated to ‘mnemohistory,’ that has only relatively recently created new ways of interacting with concepts of “collective memory” and their relation to the discipline of history. More specifically, he argues that “mnemohistory is concerned not with the past as such, but only with the way the past is remembered.”⁷ Furthered, “mnemohistory is reception theory applied to history...The past is not simply received by the present. The present is haunted by the past and the past is modelled, invented, reinvented, and reconstructed by the present.”⁸ While most historians visiting archives and using the material are focused on the actual content on the pages, a phenomenon Assman refers to as history proper, there is another component to the preservation of said materials; it’s a process entrenched in remembering and forgetting and warrants further study into this type of memory scholarship. Under what criteria deems material important or

⁷ Jan Assman, “Moses the Egyptian: The Memory of Egypt in Western Monotheism,” in *The Collective Memory Reader*, ed. Jeffrey K. Olick, Daniel Levy, and Vered Vinitzky-Serouss (London: Oxford University Press, 2011): 210.

⁸ *Ibid.*, 210.

significant enough to be kept, and more importantly, what does it mean at a given moment to keep material? How have archivists chosen to remember the past at given moments, and what do we do with that information to better attend to current archival practices?

While I will be using the ideas of “cultural memory” (also recognized as “collective” or “social”) in very specific ways, it is incredibly interdisciplinary and applicable to so many avenues of historical, sociological, anthropological, and psychological studies. Though the malleability of memory study comes with an ambiguity of definition, its inherent interdisciplinary nature is what I propose studies into appropriate digital archival theory warrant. While historians are an irreplaceable voice in the conversations regarding what to keep, and therefore what to remember, and what to not keep, and as a result forget, they are not the only voices necessary in this conversation.

But what exactly does this mean for the current state of archiving? Postmodernists argue that objectivity is unattainable, but researchers and archivists still use archives to seek a degree of truth. Therefore, archivists have a responsibility to their collections to minimize outside influences—donors, administrators, institutional ties— subjecting the collections to their biases. To do so, formalizing collection policies is essential, however these policies cannot be contained to just the impenetrable black box that is the archive. Under the assumptions of postmodernism, and the ability to identify threats to the integrity of collecting, archivists should have the ability to better adapt to their profession’s and collections’ needs over time, but they cannot be the only voice in the conversation. Collection and appraisal policy must be an interdisciplinary pursuit.

Chapter two methodologically resembles an intellectual history of archival science; it will contend with some of the key figures in the professionalization of archival science and the community’s reaction to the proposed changes and challenges to their profession. It also

uniquely reviews key institutional developments in some of the largest archives of the United States, and attempts to mnemohistorically analyze the ways in which collecting and appraisal records can and do reveal where archivists have placed importance throughout the late 19th and early 20th century.

Chapter three follows early attempts to maintain our digital culture and born-digital sources from the mid-1980s to now. It highlights both the incredible foresight early projects had that realized the importance of preserving our digital heritage and culture, but it also reveals a bleaker reality that efforts into digital preservation have always been underfunded, unstandardized, and unimplementable at large. It also illuminates a focus into the technological realities of digital preservation and the lack of attention paid to the theoretical conceptions of what is necessary to preserve. It also contends that the “Great Debate” I address in chapter two has tangible and theoretical offerings to the future of digital preservation, however the materials born from the Digital Revolution cannot always be thought of in analogous ways to their previous analog predecessors. I attempt to also offer tangible solutions regarding digital appraisal theory that has, until now, been underwhelmingly addressed in contemporary scholarship. Because there is so much digital material created every minute, an archivist will need clarity now more than ever into what could and should be kept. I argue that though technological feasibility is important to the conversation, establishing exactly what types of material are necessary to preserve for future materials is the first step in a continually renegotiated conversation regarding digital preservation.

The last chapter offers some recommendations to the discipline of history; while moving into the digital era, there are large shifts not only in how history is consumed but how research will be conducted. Any historian studying periods from the 1980s onward will need to contend

with the Digital Revolution and consequently born-digital sources. This chapter offers some provocative and innovative but necessary steps for academia to prepare students for a new age of historical research.

Conducting a study into the purpose and theory of the core archival functions of provenance, original order, appraisal, and arrangement, I will illuminate what is and is not feasible. Working from seminal archive science manuals, discussions in the community of archival science, the Society of American Archivists records, and more, I will construct a history of where archivists have placed importance in their collecting fields and how that has informed the writing of history. This study will demystify the archive, in terms of where it has been and the problems it faces currently and futurally to historians while offering tangible approaches and conversations into how the advent of digital material will affect the discipline and study of history. The primary goal of this paper is to try to explain to historians how the archival processes have influenced the memory and writing of history, and even more urgently, how they have the ability, now more than ever, to participate in the keeping of knowledge to avoid a future of record scarcity.

CHAPTER 2

THE BRIEF HISTORY OF AMERICAN ARCHIVAL APPRAISAL THEORY AND ITS PRACTICAL APPLICATIONS

The intellectual conceptions of archival theory have been riddled with, as Thomas Kuhn puts it best, paradigm shifts.⁹ Western archival theory, at its early stages, was very obviously informed by two prolific and pervasive texts during its formative years. Hilary Jenkinson's *A Manual of Archive Administration* and T.R. Schellenberg's *Modern Archives: Principles and Techniques* transformed the fundamental question of what an archivist was and what or who they were servants to. But the true divisiveness between Jenkinson and Schellenberg's approach, and what the community of archivists in their contemporaneous moments found, was that though Jenkinson's moral obligation to objectivity was a respectable but lofty goal, Schellenberg's fusion of archival science and records management was seen as at moments morally irresponsible but practically necessary.

As the discipline of history transformed through the 1960s and 1970s and arrived in a postmodernist realm in the 1980s and 1990s, the ideas of the archivist's role transformed in similar fashions. But the presence of postmodernist theory within the archival discourse reverted Schellenberg's principles situated in logistical tangibility back to a theoretical high ground. This chapter explores the dichotomy between theory and implementability that, since its origins in the US, has been the crux to the archival community.

⁹ Thomas Kuhn, *The Structures of Scientific Revolutions* (Chicago, IL: University of Chicago Press, 1996): 11.

2.1 Brief History of Archival Science and the Professionalization of the Archivist in the United States

In 1931, Carl Becker delivered his famous speech, “Everyman His Own Historian” to the annual American Historical Association. In it, he constructs a rather unremarkable character he calls “Mr. Everyman” who became the historian of his own social experience; what Becker intends to do is demystify the professionalism of history, deconstruct the role of historian as solely fact gatherers, to reevaluate history as an interpretive art, to frame history “as the artificial extension of social memory.”¹⁰ Becker further clarifies that historians are “thus of the ancient and honorable company of wise men of the tribe...whom in successive ages [have] been entrusted the keeping of useful myths.”¹¹ To think facts will speak for themselves is an illusion, and even the briefest study into the historiography contends that history and historians are very much a product of experience and therefore their work has been informed by what Becker refers to as “social memory.”

If Mr. Everyman is his own historian, Mr. Everyman is his own archivist as well. The preservation of one’s own materials is not a new phenomenon by any regards, however the professionalization of the archivist in the United States happened relatively recently. Until the 19th century, little effort was made to standardize and teach proper modern archival preservation techniques and correct archival practices. While this work does not attempt to contend with archival theory on an international scale, it does seem neglectful to not briefly describe the origins of the professionalization of the archive and contextualize the origins of the main, prolific archival theories that still inform much of our current understanding of best practices. The

¹⁰ Carl Becker, “Everyman His Own Historian,” in *The Collective Memory Reader*, ed. Jeffrey K. Olick, Daniel Levy, and Vered Vinitzky-Seroussi (London: Oxford University Press, 2011), 123.

¹¹ *Ibid.*, 123.

historiography points to the post-revolutionary Archives Nationale of France, tasked to preserve the revolutionary literature and records of the reconfiguring nation, as the turning point for the whole field of western archival theory and practice. Originally founded in 1789, the Parliamentary Archives Office transitioned to the Central Archives Establishment of the State, which meant that all lesser pre-existing repositories as well as contemporary public agencies producing materials followed its lead.¹² Secondly, “the Revolutionary legislation [seemed] to have been that the state acknowledged its responsibility respecting the care of the documentary heritage of the past.”¹³ And this not only applied to the state’s art but also restructured its understanding of historical value and revealed importance to also the “written monuments of the past [that] deserved preservation and care.”¹⁴ Thirdly, it opened the archive to the public as the legislation decreed: “Every citizen is entitled to ask in every depository...for the production of the documents it contains.”¹⁵ Though not specifically decreed in the name of scholarly research, the sentiment of public availability was a pivotal shift in the use-value of the archive and in the role of the archivist as the intermediary between the researcher and the records. These institutional changes regarding the role of the archive, and the importance of a preserved physical heritage mark the origins of early Western archival theory.

The French’s establishment of national responsibility in the preservation of records for posterity also resulted in attempts to create the professional archivist. Sir Francis Palgrave, an English archivist and historian, stated that “the Record service, requiring as it does a knowledge of law, of languages, and of general history, must if to be rendered efficient, be treated as a

¹² Ernst Posner, “Some Aspects of Archival Development Since the French Revolution,” *The American Archivist* Vol. 3, no. 3 (July 1940): 161.

¹³ *Ibid.*, 161.

¹⁴ *Ibid.*, 161.

¹⁵ *Ibid.*, 161.

distinct profession.”¹⁶ Historian Roy Conrad found that this meant the archivist must be both “custodian and scholar.”¹⁷ Not only did the archivist facilitate accessibility of records, they also had a responsibility to the research and scholarly community to offer interpretative assistance to the collections they were stewarding.

To further the necessity of accessible, findable, authentic records and therefore infallible archival management skills, the shift within the discipline of history that places objectivity and factuality above all added external pressures to the archive. Empiricism, described as “a theory of knowledge, an epistemology, and a method of historical enquiry,” shifted the role of the historian monumentally; where historical scholarship had often been written in memoir fashions after the fact, Leopold von Ranke asserted that histories should only use primary or original sources to reconstruct the past.¹⁸ That in addition to Auguste Comte’s theory of positivism, that believed history, like the natural world, could be understood in general laws ensured the historian’s reliance on the archive and therefore relied on the archives competency in its collecting practices and the archivist’s promise to “objectivity.”

2.2 The Trained American Archivist

As mentioned previously, the role of the archivist became professionalized early on for Europe, however academic education for archival science in the United States fell behind. This was for various reasons; *A Report on the Public Archives*, published in 1918 by the American Historical Association, found that for much of the nineteenth century, untrained functionaries

¹⁶ Sir Francis Palgrave, *The Collected Historical Works of Sir Francis Palgrave* (London: Cambridge University Press, 2013), 20.

¹⁷ *Ibid.*, 20.

¹⁸ Anna Green and Kathleen Troup, *The houses of history: A critical reader in twentieth-century history and theory* (New York: New York University Press, 1999), 2.

cared for the records the government was producing. Though there was public interest in American sourcing, as a symptom of nationalism, the scholarly community primarily utilized overseas material, secondary sources, and anecdotal accounts in the creation of a national history.¹⁹ Further, while the national material was being kept, admittedly inconsistently and inadequately, individuals--historical enthusiasts, antiquarians—became responsible to collect and preserve business, organizational, and state governmental records. Historical societies, museums, libraries, universities, and individual collectors took up the role of the archivist. Because this seemed to be effective, there was little need for both archival standards and specialized training programs.

It really was not until the turn of the century, with the rise of empiricism and research experience with European archives, that the American Historical Association developed its Committee of Public Archives to “survey archives, press for the establishment of a national archives, and lobby for legislation to create and protect state and local archives.”²⁰ While it was a step towards standards, its purpose was “to investigate and report, from the point of view of historical study, upon the character, contents, and functions of our public repositories...”²¹ However this presumed that historians were the best and only qualified to investigate the adequacy of archival programs, and that the primary users of the archive were historians.

In the 1918 *Report on the Public Archives*, Theodore Christian Blegen, an American historian, reveals that the Public Archives Commission most significantly changed the way state archives interact with the material of various localities. For our sake, Blegen details early ideas

¹⁹ Theodore Christian Blegen, “A Report on the Public Archives,” *Bulletin of information* Issue 94 (1918): 15.

²⁰ Roy Conrad Schaffer, *The knowledge base and archival professionalism in North America: a political history* (Vancouver: University of British Columbia, 1997), 34.

²¹ American Historical Association, *1899 Annual Report of the American Historical Association for the Year 1899*, Vol. 1 (Washington: Government Printing Office, 1900), 5.

of standardizing appraisal theory and “correct” processes in applying value to the records. While this was decades before Schellenberg’s critiques of Jenkinson, it speaks to the practicality of deaccessioning and appraising. During the 1910s, and really through the 1950s, “the primary importance of archives lies in their business use-their administrative value.”²² He furthers that the value of records was and is not static, and it can disappear with time in which the records become “dead” and thus justified for disposal.

In the concluding pages of the report, Blegen found three fundamental principles through this study: one, that the archives not being used must be reviewed for value, two, that standards must be established for efficient and scientific classification and administration of records, and three, that the stewarding of archives must fall to officials trained in both theory and in practice.²³ But for his third finding, who took charge of training and what was taught?

While library management schools were not particularly new, and while European archival theory had really been epitomized in 1922 by Hilary Jenkinson’s *A Manual of Archive Administration*, which will be thoroughly discussed in a later section, American archival pedagogy fell behind. “American archival science [was] still in its infancy.”²⁴

A pivotal point in the development of the “American Archivist” was the establishment of their own society; in 1936, the Society of American Archivists constituted their organization. Following the decline of the Public Archives Commission and catalyzed by the creation of the National Archives in 1934, the society commenced its first conference with a presentation by Blegen titled “Problems of American Archivists.” According to Blegen, no university in the

²² *Ibid.*, 89.

²³ Blegen, “A Repo”, 97.

²⁴ Theodore Christian Blegens, “Problems of American Archivists” (presentation, The Conference of Archivists, Chattanooga, Dec. 1935), 31, accessed Jan. 16, 2020, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015071453032&view=1up&seq=5>.

country offered courses specifically intended to prepare students for archival work. And besides that, the question of what kind of preparation the American archivist would require had not been answered with consensus.

In a 1939, the committee on education formed the identity of the ideal American archivist:

It is the historical scholar, equipped now with technical archival training, who dominates the staffs of the best European archives. We think it should be so here, with the emphasis on American history and political science. But there is a distinct danger in turning over archives to librarians who are not at the same time erudite and critical historical scholars.²⁵

The archivist was to be its own distinct profession, and most easily added as a component to graduate instruction in American history.²⁶ History was seen to be the formative discipline on the grounds that appraisal must be based on experience in historical research. The archivist was seen to only need few skills in traditional records management education; that sentiment dissolved with the T.R. Schellenberg's *Modern Archives: Principles and Techniques*, a guidebook into the practical skills necessary for efficient records management.

2.3 The Great Debate: Hilary Jenkinson's and T.R. Schellenberg's Additions to American Archival Science

American archival theory, at its early stages, was very obviously informed by two prolific and pervasive texts during its formative years. Hilary Jenkinson's *A Manual of Archive Administration* and T.R. Schellenberg's *Modern Archives: Principles and Techniques* transformed the fundamental question of what an archivist was and to what or to who they were

²⁵ Schaffer, *The knowledge base*, 34.

²⁶ Luciana Duranti, "The Society of American Archivists and Graduate Archival Education: A Sneak Preview of Future Directions," *American Archivist* Vol. 63, No. 2 (2000): 238, accessed Dec. 22, 2019, <https://americanarchivist.org/doi/pdf/10.17723/aarc.63.2.1417x913840qn071>.

servants. If historians had been notoriously thought of as facilitators of fact and history as uninterpreted truth, the role of the archivist has even more so been believed to be an objective steward of information and records that have been untouched by personal bias. It was only in the 1980s that the integrity and objectivity of the archive came into question, and many are still under the guise of archival objectivity. The emergence of postmodernism has rattled the belief in the ability to achieve complete objectivity, and while it is commonly accepted that historians write about the past in the context of contemporary concerns and perspectives, similarly but not as pervasively, the archivist's ability to remain objective is, at the very least, questioned. The presence of postmodernist theory within the archival discourse reverted Schellenberg's principles situated in logistical tangibility back to a theoretical high ground. These next two sections explore the dichotomy between theory and implementability that, since its origins in the US, has been the crux to the archival community.

2.4 Sir Hilary Jenkinson and *A Manual of Archive Administration*

“Can we, faced with these modern accumulations, leave any longer to chance the question what archives are to be preserved? Can we, on the other hand, attempt to regulate them without destroying the precious characteristic of impartiality which results, in the case of older Archives, from the very fact that their preservation was settled either by pure chance or at least by considerations which did not include the possible requirements of future historians?”²⁷

Sir Hilary Jenkinson's *A Manual of Archive Administration* was a monolithic, unprecedented work of English theoretical scholarship regarding archival sciences at an early moment of standardization and institutionalization. Jenkinson (1882-1961) had an active and integral career in establishing repository knowledge throughout many high-level archives across England, including the Public Record Office and the War Office. Yet the true distinguishing,

²⁷ Hilary Jenkinson, *A Manual of Archive Administration* (London: P. Lund, Humphries & Co., 1937), 21.

recognizable feature of his career was his 1922 *Manual of Archive Administration* that, for the first time, connected a theoretical, malleable approach to archives that explicitly separated theory from practice.

In his *Manual*, Jenkinson constructed a theory of archives that built upon already accepted core concepts of original order and provenance.²⁸ But the result of Jenkinson's legacy to the archival science tradition has "been defined as one of custody, both in terms of unbroken lines of ownership and a specific custodial, 'keeper' role for archivists."²⁹ Jenkinson's entire *Manual* is informed by his opposition to an archivist who makes appraisal part of their work.³⁰ Undeterred by spatial constraints and preservation cost, Jenkinson remained convinced throughout his original manual and his revised edition that the sole rule in which an archivist must abide by is their responsibility to objectivity. While the preceding scholarship revealed "the dialectic between objectivity and subjectivity in archival theory..." Jenkinson viewed it as a wholly non-compatible and non-existent relationship that should be altogether removed from archival theory.³¹

His theories stemmed from a unique experience; while working for the War Office during World War I, there were records of unprecedented complexity being produced at an unprecedented volume. Jenkinson insisted that these war archives, as well as archives of the future, were no different than the previous records and possessed fundamentally the same characteristics.³² So, under that pretext, the period in which records were created, even if they

²⁸ The core archival concepts were originally described in *The Dutch Manual of 1898* by the Dutch trio Samuel Muller, Johan Feith, and Robert Fruin. Though archives had existed for centuries, and archival theory was articulated throughout the 19th century, the *Dutch Manual* had major influence because it reached many archivists as it was translated in many different languages.

²⁹ John Ridener and Terry Cook, *From Polders to Postmodernism: A Concise History of Archival Theory* (Sacramento, CA: Litwin Books, 2009), 41.

³⁰ Jenkinson, *A Manual*, 62.

³¹ *Ibid.*, 117.

³² *Ibid.*, 15.

were physically and feasibly too voluminous to store, meant nothing thus asserting that archivists should leave appraisal decisions to the creators of records rather than risk imparting their own judgment and biases into a body of records by removing selected items.³³ This philosophy, which I will get into further in the latter sections, was the subject of most of his critiques.

The objectivity he proposes is the “primary” role of the archivist; but what is the secondary? Well, the secondary role of an archivist was to serve the public, a term he uses interchangeably with researchers and historians. It was secondary in a value hierarchy as well:

The Archivist is not and ought not to be a Historian. He will need of course, some knowledge of History and may be interested in it personally...but his duty is to his Archives, independently of any of the Research subjects (of which at present History is the most prominent) which make use of Archives for their own ends; and therefore an interest in any of these subjects...might be more than inconvenient or inappropriate, it might be positively dangerous.³⁴

The role of the archivist was a middleman between researcher and document. The researcher would and could have complete faith that the documents presented to them were free from the archivist’s imposition.

But while objectivity is a valiant goal, especially in terms of preserving cultural heritage, many critics of Jenkinson found his conclusions admirable but completely intangible. In August 1924, Hubert Hall challenged Jenkinson in his *British Archives and the Sources for the History of the World War*. Officially a survey of British records of the First World War, it effectively became an indictment of the British government's records administration practices and a direct rebuke of Jenkinson's ideas on appraisal. Hall bluntly charged that the government did and always had done an incompetent job of managing its records and should defer to the guidance of archivists and historians for the proper stewardship of government archives. He angrily

³³ Jenkinson, *A Manual*, 143.

³⁴ *Ibid.*, 123.

chronicled a long history of official mismanagement of documents through neglectful storage, careless destruction, wrongheaded policies on openness, and underfunding for the Public Record Office. He condemned both the reckless destruction conducted by civil servants and Jenkinson's reluctance to discard anything. Although Hall never addressed Jenkinson by name, any informed reader knew that he was Hall's misguided "purist" who favored discarding only duplicate records.³⁵

Even those in sympathy with Jenkinson could not easily accept everything he advised. George Herbert Fowler, a Bedfordshire county councilor and self-trained archivist, based *The Care of County Muniments* (1923) on Jenkinson's principles, recommending the *Manual* as "a volume which should be in the hand of every archivist." He initially accepted that only the head of the creating department should decide which records should be retained and for how long, but as both an archivist and a county councilor, Fowler knew this was never going to happen: "But in practice it is doubtful whether a busy official could find the time (even if he had the will) to wade through ten-year-old bundles of the correspondence of himself or his predecessor; probably he would sling the whole lot impatiently into the wastepaper basket."³⁶ Fowler recognized that the archivist inevitably would have to make appraisal decisions himself to save himself from overcrowding. Nonetheless, he cautiously advised archivists to delay appraisal until several years after creation, obtain the permission of the county records committee and the head of the concerned department, and absolutely maintain constant communication with the issuing department throughout the appraisal process.³⁷ And while critique was plentiful, no one was nearly as critical as his American counterpart T.R. Schellenberg.

³⁵ Hubert Hall, *British archives and the sources for the history of the world war* (London: Humphrey Milford, 1925), 320.

³⁶ George Herbert Fowler, *The care of country muniments* (Westminster: County councils Association, 1923), 176.

³⁷ Fowler, *The Care*, 79.

2.5 The Great Debate: Sir Hilary Jenkinson versus T.R. Schellenberg

Theodore Roosevelt Schellenberg, an archivist with a career in the federal archives in the US, changed the archival profession profoundly. Published in 1957, *Modern Archives: Principles and Techniques* views the conundrums regarding the realities of archiving from the perspective of a practicalist. The main focus of Schellenberg's theoretical scholarship was written from a records management lens rather than an objective keeper of records. His work in archival theory marks a definitive moment that "epitomizes the modernization of archival practice and culture during the early postwar period in the United States."³⁸

Schellenberg (1903-1970) trained as a historian, and one year after completing his doctorate, Schellenberg was hired within the National Archives and Records Administration (NARA) as a Deputy Examiner, a job necessary to examine executive agencies' records.³⁹ In 1938, he was appointed chief of the Division of Agriculture Department Archives, which he eventually left in 1945. It was in this position that he published his first paper in 1939, "European Archival Practices in Arranging Records" which laid the groundwork for his life's work. The article relayed the realities of the U.S.'s current governmental archive and the inability for European archival science to adequately attend to America's changing needs regarding records management. Jenkinson's theories could no longer contend with the sheer volume of record production, and Schellenberg saw the need to systematically and technically control the United States' archives.

³⁸ T.R. Schellenberg, *Modern Archives: principles and techniques* (Chicago, IL: The University of Chicago Press, 1975), 52.

³⁹ Jane Smith, "Theodore R. Schellenberg: Americanizer and Popularizer," *The American Archivist* Vol. 4, No. 4 (Fall 1981): 317.

He agrees with Jenkinson on three integral parts: one, that the records of a given agency should be kept together as records of that agency, two, that such records should be kept, as far as possible, under the arrangement given them in the agency in the course of its official business (now called original order), and three, that such records should be kept in their entirety, without mutilation, alternation, or unauthorized destruction of portions of them.⁴⁰

While not completely different from more traditional archival science, what distinguishes modern records from ancient archives, however, and what necessitated new archival theory and principles, was their bulk.⁴¹ Schellenberg cites “the practical need of improving governmental efficiency” in the face of ever increasing masses of documentation as the “immediate, and obviously the most compelling reason” for the establishment in 1934 of the National Archives of the United States.⁴² That meant that Schellenberg needed to develop a plan to reduce bulk by intelligently selecting from the vast documentation deciding what was to be kept for posterity, and thus made accessible to researchers and scholars, and what was to be deaccessioned and/or destroyed.⁴³

Schellenberg believed that while records were created to serve the needs of their creator, they were also preserved to serve the needs of future researchers.⁴⁴ He ascribed two different values to records: primary value which related to their usefulness as evidence for the creator, and secondary value which related to their historic and cultural functions for those other than the creator.⁴⁵ As opposed to Jenkinson who saw the creator as ascribing value to their own collection,

⁴⁰ Schellenberg, *Modern Archives*, 15.

⁴¹ *Ibid.*, 74.

⁴² *Ibid.*, 8.

⁴³ Schellenberg, *Modern Archives*, 115.

⁴⁴ *Ibid.*, 116.

⁴⁵ Reto Tschan, “A Comparison of Jenkinson and Schellenberg on Appraisal,” *The American Archivist* Vol. 65, No. 2 (Fall/Winter 20020): 180.

Schellenberg saw the future use value of a record, both to the creator and to the researcher as central to the appraisal decision and thus central to the value of the record itself.

Where middle-ground was unmeetable was the role of appraisal theory in archival science. In terms of their identifications of records, Schellenberg conceived of archives as a separate “species of records” because someone had deemed them worthy of permanent preservation.⁴⁶ “For Jenkinson there is no such definitive and transformative point at which records become archives, and this is not only because, terminologically, Jenkinson considered records and archives synonymous.”⁴⁷ For Jenkinson, archival documents were created when “having ceased to be in current use, they [documents] are definitely set aside for preservation, tacitly adjudged worthy of being kept.”⁴⁸ Jenkinson’s tacit judgment is not Schellenberg’s value-determined selection, however, but refers to the fact that every archival document had been “selected” by virtue of the fact that “someone decided to stick it into a file rather than the bin.”⁴⁹

But that begs the question, who is responsible for appraising the records? For Jenkinson, appraisal was at its core anti-archival. The duty of the archivist was the protection of the records. While he was not completely ignorant to the realities of archival bulk, he neither saw appraisal as an agreeable task. Jenkinson’s criteria for selection, however, was limited to current office documents, and explicitly stated that “Records [archival documents] ought not to be destroyed.”⁵⁰ Instead, bulk needed to be addressed at the point of creation, prior to the transformation of office documents into records. To put simply, the creator of the records was responsible to sift through their own material and identify importance.

⁴⁶ Schellenberg, *Modern Archives*, 15.

⁴⁷ Reto, “A Comparison”, 181.

⁴⁸ Schellenberg, *Modern Archives*, 115.

⁴⁹ *Ibid.*, 14.

⁵⁰ *Ibid.*, 149.

But as Schellenberg asserts, the archivist is “the professional who selects documents used for administrative purposes and preserves them, mainly for scholarly use.”⁵¹ Unlike Jenkinson, Schellenberg saw the archivist as an active participant, an active appraiser of collections who acted as a middleman between the creator and the researcher. Schellenberg was faced with very tangible realities of archival bulk, and his solution could not be as Jenkinson suggested. The archivist had to manage the collection, and appraisal was an integral part to that task.⁵²

Schellenberg and Jenkinson thus had very different views of the nature of archive. Schellenberg argued that archives were kept for reasons unrelated to their creator’s interests, primarily for their informational and evidential values in fulfilling potential research needs, and he saw the archivist as an interventionist, selecting documents for preservation and working closely with records managers and current records. Jenkinson maintained a more passive stance, advising on issues of selection and records scheduling, but opposed engaging in the task of appraising archives.

2.6 The Debate in the Community

By the time the Society of American Archivists (SAA), founded in 1936, published their first volume of their journal, *The American Archivist* in 1938, perhaps Jenkinsonian theories of objectivity were not as pervasive in its totality as some historians assert. As Schellenberg argued 20 years later, the theory of objectivity, and the lack of appraisal theory, was a pipe dream. While in the theoretical space, reviewers of *The Manual of Archive Administration* found its analysis resulting in the archivist as “custodians” of records responsible and entirely necessary for the preservation of an autonomous, objective receptacle of knowledge. In actuality,

⁵¹ Schellenberg, *Modern Archives*, 224.

⁵² *Ibid.*, 41.

Jenkinson's form of objectivity, and the process to achieve it, was tangibly inconceivable from the beginning.

While its objectivity is not a viable, applicable option for functioning archives and collecting practices, it is not without beneficial theoretical offerings; reviewers of contemporaneous moments felt similarly. One reviewer foresaw the Jenkinson-Schellenberg debate thirty years before Schellenberg's work; "Guardians of written records stand in a dilemma. On the one hand, it is their business to preserve and not to destroy...On the other hand, they have to reduce future accessions to a manageable bulk."⁵³ But, "these fundamental principles of archive science have now such a wide acceptance that discussion usually centers around flexibility of their application in detail to suit local conditions."⁵⁴ So, while there was apprehension on whether or not Jenkinson's theory fit into the unique circumstances of local conditions, his intellectual thought regarding provenance, objectivity, original order, and appraisal became so pervasive in the archival discipline, and still are, that their validity was never questioned, only their applicability.

Some reviewers found that the Eurocentric study of archives made this manual at times inapplicable to American archives. As Solon J. Buck, the second Archivist of the United States, wrote, "the principles of archival economy may be universal, but their application varies with the varying character of records of different periods and countries."⁵⁵ The archive economy, as he refers to it, is Jenkinson's archive administration. He furthers that Jenkinson's applications only pertain to those caring for medieval records. He posits that archivists in the United States

⁵³ H.H.E. Craster, "Reviewed Work: *A Manual of Archive Administration*," *The English Historical Review* Vol. 38, No. 149 (Jan., 1923), 136-137.

⁵⁴ David Parker, "Reviewed Work: *A Manual of Archive Administration*," *The American Political Science Review* Vol. 17, No. 4 (Nov., 1923): 673-674.

⁵⁵ Solon J. Buck, "Reviewed Work: *A Manual of Archive Administration*," *Journal of the American Statistical Association* Vol. 33, No. 202 (Jun., 1938): 500.

frequently need to know what to do about enormous masses of raw data such as census schedules and replies to questionnaires; they seldom have occasion to clean and repair book pages and parchments, but they need information about efficient and inexpensive methods of fumigation, flattening, and rehabilitation for vast quantities of modern papers. He concludes that “a manual of archival economy designed to meet these, and other needs of American archivists is desideratum. Doubtless it will appear in the fullness of time.”⁵⁶ Though Jenkinson’s second edition, revised to provide guidance to some of the logistical quandaries spurred from wartime record creation, answered some of Buck’s questions in theory, Jenkinson’s American counterparts found value in his theory of subjectivism and objectiveness, and overall deemed it an asset to understanding the archive economy; however more American specific archival theory was, and still is, needed to contend with appraisal theory and its irreconcilable connection to objectivity.

Oliver W. Holmes, an active member of the Society of American Archivists and writer for its publication *The American Archivist*, saw Jenkinson’s dependency on objectivity as exacerbating the problem and establishing a distrust between the archivist and the user; he wrote that “selection is not only desirable, it is inescapable; and it should not be too long delayed...Trying to save everything will subject the whole program to ridicule. It is scarcely fair to expect society to burden itself through generations with material that does not assay high enough to pay dividends.”⁵⁷ Albert Ray Newsome, in a succeeding article, wrote that as a result of Jenkinson’s pervasive work, the tendency to “view the archivist as a technician with narrow, restricted, and rather negative functions” pervaded.⁵⁸ He furthers that by stratifying an archivist’s

⁵⁶ Buck, “Reviewed Work,” 502.

⁵⁷ Oliver W. Holmes, “The Evaluation and Preservation of Business Archives,” *The American Archivist* Vol. 1, No. 4 (Oct., 1938): 172.

⁵⁸ Albert Ray Newsome, “The Archivist in American Scholarship,” *The American Archivist* Vol. 2, No. 4 (Oct., 1939): 217.

work into primary and secondary tasks and concerns limits his perceived ability to serve the public needs, and the impossibility for the archivist to be able to divert his own scholarly interests in attempts to be wholly objective made Jenkinson's ideals unbelievable. But as he contends, "in the light of actual conditions in the United States, is this view of restricted archival function and compartmentalized responsibility realistic, wise, and adequate, and does it afford sufficient freedom for the development of archival profession?"⁵⁹ Under this lens, he argues, not much. With the proper training, which he constitutes as a PhD in Philosophy with emphasis in American History, an archivist is the only one who will be appreciative of the administrative and historical values of archives.⁶⁰

Schellenberg's previously mentioned work, *Modern Archives: Principles and Techniques*, contended with much of the same logistical issues the aforementioned reviewers had with Jenkinson's theory. Schellenberg's book was very well received. Not one reviewer was leery of Schellenberg's heavy hand when it came to deaccessioning for the sake of records management, something those who follow Jenkinson's model astutely would have found completely irresponsible and against the role as a protector and keeper of records.

One reviewer called it "the most significant and useful statement yet produced on the administration of modern records and archives."⁶¹ Another reviewer wrote that "*Modern Archives* is the first good book produced by an American author on general archival problems...this book gives us a much needed authoritative work on handling modern archives."⁶² Interestingly, Morris L. Radoff, the second state archivist of Maryland and active member in the

⁵⁹ Newsome, "The Archivist," 218.

⁶⁰ *Ibid.*, 220.

⁶¹ Waldo Gifford Leland, "Reviews of Books: Modern Archives; Principles and Techniques," *The American Archivist* Vol. 19, No. 4 (Oct., 1956): 326.

⁶² Jesse E Boell, "Reviewed Works: *Modern Archives: Principles and Techniques*," *The Wisconsin Magazine of History* Vol. 40, No. 3 (Spring, 1957): 219.

SAA, recommended that this book be read by any persons interacting with archives, not just archivists who need implementable standards and policy. Primarily a review targeted at historians, Radoff noted that this specific book was illuminatory of how the quantity and quality of modern records are made available for their use and “how a close reading of the book will furnish him with a startling view of how American archivists and American archives have moved to meet record problems” and thus have influenced what histories survive.⁶³ That being said, Radoff did not see the selection process as inherently irresponsible or immoral but as a necessary process that has undergone “much thought and experimentation...into the administration of the historical records of the government.”⁶⁴ It should be said that Schellenberg’s theories were viewed as only applicable to national and larger repositories and while local administrations could value from this type of study, they would have to manipulate Schellenberg’s principles to their individual concerns and needs.

2.7 The Debate in Practice at the United States National Archive

Prior to the insertion of Schellenberg’s theory, and noting that there was a consensus among American archival professionals that some sort of appraisal theory was necessary, what did the process actually entail? After the creation of the United States National Archive in 1934, the archivists, after abiding by Jenkinson’s theories for years, had accumulated so many documents that they had run out of space and required a reappraisal and deaccessioning of their records. However, the very reduction of records was directly opposing the philosophical

⁶³ Morris L. Radoff, “Reviewed Work: *Modern Archives: Principles and Techniques*,” *The Mississippi Valley Historical Review* Vol. 43, No. 4 (Mar., 1957): 708.

⁶⁴ *Ibid.*, 709.

parameters they had been functioning within and was contingent upon finding a standardized and implementable policy to avoid the cautionary tale Jenkinson warned against.

As chronicled in the first report of the Archivist of the United States, the erection of the National Archives Building and establishment of The National Archives marked the consummation of a movement for American scientific archival preservation and administration of archives of the Government of the United States that had been in the planning stages for over a century. The problem of the proper care of the public archives arose even before the organization of the government itself. At its first meeting, the First Continental Congress, in 1773, conscious of the importance that posterity would attach to its proceedings, took the necessary steps to preserve the records of its deliberations and its actions. The results? 490 bound volumes of records that constituted the archives of the United States from 1774 to 1789 and the knowledge of the period.⁶⁵

With the new Government under the Constitution and its subsequent move to Washington, the problem of the preservation of the archives became even more pressing. The volume of the records increased as did their value, and the new Capital City offered no safe depository for these records. “That fact was sharply emphasized in 1800 when a fire destroyed a large portion of the records of the War Department.”⁶⁶

The first step toward improving the condition of the archives was taken when Josiah Quincy moved into the House of Representatives the appointment of a committee “to inquire into the state of the ancient public records and archives of the United States, with authority to consider whether any, and what, provision be necessary for a more safe and orderly preservation

⁶⁵ The National Archives, “First Annual Report of the Archivist of the United States” (Washington: US Government Printing Office, 1936), 1-7, accessed Oct. 7, 2019, <https://babel.hathitrust.org/cgi/pt?id=nnc1.cu08278423&view=1up&seq=11>.

⁶⁶ *Ibid.*, 2-5.

of them with leave to report by bill or otherwise.”⁶⁷ In its report, the committee declared that in its investigation it found “all the public records and papers belonging to that period, antecedent to a state of great disorder and exposure; and in a situation neither safe nor convenient nor honorable to the nation.”⁶⁸ These records were stored in the garrets “of the public building west of the President’s house,” where they also deposited “all the public records recently, as well as ancient, of the state, war and navy departments.”⁶⁹ The committee was satisfied that “this building does not contain sufficient room for the general accommodation of those departments; nor can enable a safe and orderly disposition of the public records, so long as it is permitted to be occupied as it is at present.”⁷⁰ Upon the committee’s recommendation, Congress passed an act on April 28, 1810 making an appropriation for the construction in the building west of the President's house of “as many fireproof rooms as shall be sufficient for the convenient deposit of all the public papers and records of the United States, belong to, or in the custody of the state, war or navy department.”⁷¹ This act may be appropriately called the first National Archives Act.

The Act of 1810 did not solve the problem. During the next half century the nation grew, and its archives increased in equal proportions; as they increased in volume and in value the conditions under which they were kept became more and more precarious.⁷² The conditions under which archives were kept were frequently described to officials of the government, who intermittently recommended remedial legislation.⁷³

⁶⁷ The National Archives, “First Annual Report, 1936,” 11.

⁶⁸The National Archives, “First Annual Report of the Archivist of the United States” (Washington: US Government Printing Office, 1935), 72, accessed Oct. 7, 2019, <https://babel.hathitrust.org/cgi/pt?id=nnc1.cu08278423&view=1up&seq=11>.

⁶⁹ United States Congress, Act to Establish a National Archives of the United States Government, 78d Congress. Sess. II, June 1934, 1123. The Library of Congress, accessed Nov. 1, 2019, <https://www.loc.gov/law/help/statutes-at-large/73rd-congress/session-2/c73s2ch668.pdf>.

⁷⁰ *Ibid.*, 1123.

⁷¹ *Ibid.*, 1123.

⁷² The National Archives, “First Annual Report,” 2.

⁷³ *Ibid.*, 60.

Despite the refusal for Congress to pass an archives bill, the movement had continuously gathered momentum. Congress frequently called for reports on the subject, and these reports, together with discussions of the problem, gradually enlarged the ideas of executive officials, of legislators, and of the general public as to the requirements of an adequate archives establishment for a great nation. These changes in the official conception of an adequate archives establishment, important as they were, related only to the size and character of the physical plant required to house the Nation's archives. Even more important, if more slowly evolved, was the change that was gradually taking place in the conception of the functions of such an establishment. The proponents of the "Hall of Records" only ever framed this movement as a storage facility; "never so far as the records show, did it occur to any of them that another and equally important object of an archives establishment was the efficient administration of its collections for the service of the government and of scholars."⁷⁴

The idea of service to government officials and scholars as a primary function of a national archive's establishment gave a new slant to the movement and stimulated a livelier interest in the proposal than had been aroused by official representations. But it did increase the pressure on Congress for an archive building. On September 9, 1931, ground for the building was broken, and by February 20, 1933, President Hoover laid the cornerstone.

In anticipation of the completion of the National Archives Building, the Bloom-McKellar bill, soon after known as the National Archives Act, approved the creation of the Office of the Archivist of the United States, a National Archives Council, and a National Historical Publications Commission. The two major objectives of The National Archives were:

"(1) the concentration and preservation in the National Archives Building of all inactive archives of the Government of the United States of such administrative value or historical interest that they must be preserved over a long period of time, or permanently; and (2)

⁷⁴ Congress, An act to establish, 1123.

the administration of such archives so as to facilitate their use in the business of the government and in the service of scholarship.”⁷⁵

The role of the archivist was very much in a similar vein to Jenkinson’s vision, but by 1940, the National Archives were so overwhelmed by the amount of records that appraisal, reappraisal, and deaccessioning was necessary.

As an answer to necessary deaccessioning in the National Archives, Emmet Leahy entered the scene. Schellenberg’s theories did not enter the American archival space until it was published in 1956, and that meant when Leahy arrived at the National Archives in 1935, there was no formalized collections management policy. He was tasked, as the archivist faced with copious amounts of documents, to examine records and find those without "permanent value or historical interest" that could be destroyed or otherwise disposed of.⁷⁶ But value, as it always has been, was inherently ambiguous. Without a formalized plan, the overwhelming amount of records stored within the walls of the National Archives would be increasingly more and more unmanageable and required some sort of reappraisal program.⁷⁷

Leahy developed an archival theory that treated documents as if they had lifecycles. It was a process to determine the differences between what he referred to as “temporary value” and “archival value.” And while deaccessioning and destroying parts the collection that had “expired,” he also realized that duplication seemed to be an even bigger problem. During a trip to Europe in 1938 to study international archival practices, he noted that records reduction programs would have to continue “the destruction of past and future accumulation of approved lists of records, periodic transfer of records to central archives, scientific sampling and microfilming, insuring the integrity of

⁷⁵ The National Archives, “First Annual Report,” 10.

⁷⁶ *Ibid.*, 7.

⁷⁷ *Ibid.*, 13.

valuable data, segregation of papers having no permanent value, prevention of excessive recording.”⁷⁸

In September of 1941, Leahy became the Director of Records Coordination for the Navy in the Office of the Secretary of the Navy where he could carry out his experiments of collections management. “To address unessential duplication, he initiated a survey of forms used in the Navy that identified 1,248 reports or forms that could be eliminated or modified. Leahy also believed that records creation could be more efficient if form letters were used to answer repetitive correspondence.”⁷⁹

Leahy’s ideas for records management was particularly influential on Schellenberg’s value-based theory. As outlined in Ernst Posner’s “What, Then, Is the American Archivist, This New Man?”, the guidelines of Schellenberg’s *Modern Archives* created a new role for American archivists that was defined as the antithesis to the “overly passive...role of archivists in shaping the historical record.”⁸⁰ In a perhaps overly optimistic envisioning of the future for archival administration and records management, Posner saw Schellenberg’s addition to archival scholarship essential in the progression of the character of the archivist, but viewed it as only a practice permeating into higher levels of the national archives but lacking in institutional, business, and state archives.⁸¹

While archival science and theory, in theory, was finding substantive footing in standards and policies, the state archives, by the time of Schellenberg’s addition, was in utter disarray. In 1957, Henry Howard Eddy, another active member of the SAA, published the “Reports of State

⁷⁸ *Ibid.*, 42.

⁷⁹ Emmett Leahy, *Modern records management: a basic guide to records control, filing, and information retrieval* (New York: McGraw-Hill, 1953), 35-39.

⁸⁰ Ernst Posner, “What, Then, Is the American Archivist, This New Man?,” *The American Archivist* Vol. 20, No. 1 (Jan. 1957), 4.

⁸¹ *Ibid.*, 9.

Archivists” that illuminated a fragmented, inefficient system of state archives; “the state archival agency is engaged in a prolonged struggle to establish a modern program to attain stature as something more than a genealogical agency, and to secure adequate staff and quarters.”⁸²

Throughout the compilation of state reports, it is clear that there is no cohesive vision as to the role of the state archives and no equality in the access of resources to achieve this unrealized vision.

In practice, Schellenberg’s guide to records management and archival science resulted in much more microfilm or copies of records than the collection and preservation of authentic records. But as I will extrapolate on further, the authenticity and original state of the record has been, more recently, found to be essential to the research process, and the increasing reliance on microfilm proved a necessity for the spatial constraints experienced by the archivists but a hindrance for the scholars needing documents in their original form.

2.8 After Schellenberg and the Postmodernist Age

It is not as easy a task to track the origins of modern archival theory as opposed to those previously defined by fundamental pieces of scholarship. While the past two theories, Jenkinson’s and Schellenberg’s, had clear, defining features distinguishable to each of their creators, the current theories, catalyzed by a generation of questioning of archival practices in the 1980s, were formulated by a number of key figures situated in poststructural and postmodern tendencies borrowed from philosophers like, in this instance, Jean Francois Lyotard, Michael Foucault and Jaques Derrida. Postmodern cultural critics began to notice the archive and historians’ dependence on archival records to recreate history and questioned the archive

⁸² Henry Howard Eddy, “Reports of State Archivists,” *The American Archivist* Vol. 20, No. 1 (Jan. 1957): 15.

directly. Archivists have expressed a broad range of interests in terms of a profession's response to these types of questions. A mixed response to postmodern criticism is logical since much of postmodernism's viability as an overarching philosophy is debatable; but that did not stop postmodern theory from entering the archival discourse.

Many postmodern questions of the archive stem from the questioning of metanarrative. Described by Jean Francois Lyotard as a grand, cohesive all-encompassing story or account of history, metanarratives are repositories of obscured meaning in postmodern theory. In terms of the study and writing of history, metanarratives represent the acceptance of a single authoritative history as the exclusive or even scientific truth. Criticism of metanarratives, as represented by *de facto* truth in the writing of history, became a focus of historians who worked to create histories of previously undocumented groups. Often, the techniques employed by postmodern historians include interpretation of archival records, but another approach to postmodern implementation of historical theory is to examine the archive itself.⁸³

Perhaps the most seminal, but polarizing addition to archival literature, Jacques Derrida's *Archive Fever: a Freudian Impression* takes a heady, theoretical approach to the role of archivists as the gatekeepers of history and knowledge.⁸⁴ Identifying the word "archive" from its origin *arkhē*, Derrida denotes the primariness of the archive and in its centrality to the actualization of the law. He furthers that the archive is inherently bound to government, to power, and to the law.⁸⁵ Furthermore, he presents three theses, pertaining to a conflicted relationship between Freud and the archive notion: one, that Freud successfully established a virtual archive of the mind, but favors original experience over the internal, technical prostheses

⁸³ Jean Francois Lyotard, *The Postmodern Explained to Children* (Sydney: Power Institute of Fine Arts, 1992), 22-34.

⁸⁴ Jacques Derrida, *Archive Fever: A Freudian Impression* (Chicago, IL: University of Chicago Press, 1998), 35.

⁸⁵ Derrida, *Archive Fever*.

of this archive; two, the archive is only possible through the death drive and aggression; and three, that Freud brilliantly deconstructed the archive principle by identifying its ties to law and authority.

Though Derrida's attention to Freud often gets lost in its own minutiae, and is only helpful to begin understanding the theoretical connections between power, law, and the archive, specifically to the archive, Derrida asserts that "the technical structure of the archiving archive also determines the structure of the archivable content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event."⁸⁶ It illuminated a responsibility of archivists that was, in 1996, relatively new in scope. While, again, the theoretical space that Derrida writes in is perhaps unapproachable to the masses, it is important for any archival practitioner to understand the theoretical and epistemological presumptions behind these systems.

Also, new approaches to archival theory and record keeping were direct products of change in the discipline of history. Historians began to participate in social changes and developed a new approach to the research and writing of history. Coined as Social History, a school of thought emerging in the 1960s and 1970s but finding momentum in the 1980s through the 1990s, this branch of history emphasized social structure and the interaction of different groups in society rather than affairs of the state. However, this refocusing of the study of history revealed glaring holes in the collecting processes at the hands of archivists and the sparsity of records available to write these "bottom-up" histories.

A term that author John Ridener uses to describe this moment in archival theory is the "questioning paradigm." Like historians questioning the validity of past scholarship because of

⁸⁶ *Ibid.*, 17.

its conspicuous absence of many voices necessary to conceive a “truer” narrative, archivists began to question the validity of their established standards regarding accession, appraisal, deaccessioning, etc. Before, the goal of objectivity was paramount in collecting and maintaining a viable, responsible archive; now, as integral Brien Brothman writes, “for archivists to abstain from cultural awareness and criticism is tantamount to professional irresponsibility.”⁸⁷ No longer is it the archivist's role to collect all records but to collect the right records so as to not silence the voices needed to construct responsible histories.

The attempt and want for documentary comprehensiveness is the legacy of F. Gerald Ham, who called for “a representative record of human experience in our time.” He wanted the archive to act as a “mirror to mankind.”⁸⁸ But this was not the first instance of this type of thought; Howard Zinn’s 1970 presentation to the Society of American Archivists is frequently cited as the starting point for a now substantial archival literature on the subject; many view this moment as the call for the archive and the archivist to be mindful and intentional with their collecting in the name of social justice.⁸⁹

As Terry Cook asserts in his article, “Evidence, memory, identity, and community: four shifting archival paradigms,” the archive, and the archivist, are caught in a moment of tension in the profession; is the archivist a guardian of evidence or a custodian of memory?⁹⁰ Cook argues that the role of the archive and the archivist are at a point of change where the objective, “selfless devotee of Truth the modern world produces,” are becoming interpreters or mediators of memory

⁸⁷ John Ridener, *From Polders to Postmodernism: A Concise History of Archival Theory* (Duluth, MN: Litwin Books, 2008).

⁸⁸ F. Gerald Ham, *Selecting and appraising archives and manuscripts* (Chicago, IL: Society of American Archivists, 1993), 27.

⁸⁹ *Ibid.*, 42.

⁹⁰ Cook, “Evidence, memory, identity, and community,” 106.

making. Though older theory insists that these objectives are inherently at odds with each other, Cook furthers that either are worthless without the other.

While explaining this dichotomy of role, Cook smartly harkens to Sir Hilary Jenkinson's definition of the ideal archivist, considering Jenkinson has been central to conceptions of "respect des fonds, original order, and provenance [that] were designed precisely in order to preserve records as evidence of the functional-structural context and actions that caused their creation."⁹¹ As Jenkinson explained, the ideal archivist places the utmost importance on "His Creed, the Sanctity of Evidence; his Task, the Conservation of every scrap of Evidence attaching to the Documents committed to his charge; his Aim, to provide, without prejudice or afterthought, for all who wish to know the Means of Knowledge. The good Archivist is perhaps the most selfless devotee of Truth the modern world produces."⁹² This idea, Cook argues, creates the image of a neutral, objective, impartial broker between creator and researcher which, as some would argue, never existed.

Spurred from T.R. Schellenberg's criticism of records management and appraisal theory in the 1950s, archivists have known that they are the deciders of what records are preserved and accessible and which are destroyed or neglected.⁹³ But, as Cook argues, the inevitability of injecting one's own values, experiences, and education into those choices makes discretion both very necessary and potentially catastrophic to the remembering process. And this discretion manifests in a multitude of ways:

which creators, which systems, which functions, which programmes, which activities, which ideas and discourses, and indeed which related records, will get full, partial, or no archival attention in all archival processes, from system design requirements to appraisal

⁹¹ Cook, "Evidence, memory, identity, and community," 100.

⁹² Jenkinson, *A Manual*, 258-259.

⁹³ Schellenberg, *Modern Archives*.

and acquisition, from description in all manner of finding aids to preservation choices, from types of reference services provided to document selections.⁹⁴

Concern constructed out of our postmodern moment has materialized in a multitude of scholarship that confronts conspicuous absences in the archives including gender, race, class, sexuality, religion, and more.

The analysis of archives and power is not singularly specific to Derrida though. Joan M. Schwartz's "Archives, Records, and Power" contends that archives are "active sites where social power is negotiated, contested, and confirmed."⁹⁵ She furthers that certain stories are privileged, and others are marginalized. At this point, archival power had gone unrecognized or denied, and this piece acted as a provocative call for archivists to not "simply recognize the power the archivists wield, but to explore the implications and consequences of being active intermediaries rather than passive custodians."⁹⁶ And it is here that we move from this uncomfortable underground discourse from the 1990s to the beginnings of those niche studies of remembering and forgetting. So how does the profession move from postmodern theory to archival practice? As Schwartz argues, "postmodernism requires a new openness...it requires archivists to accept their own historicity, to recognize their own role in the process of creating archives, and to reveal their own biases."⁹⁷ And uniquely pulling from Judith Butler's performance theory, the archivist must acknowledge that they are an "actor, not a guardian; a performer, not a custodian."⁹⁸

In Eric Ketelaar's "Tacit narratives: The meanings of archives", honing on Derrida's assumptions of technology and its changing effect on the archive, he writes that "the mutation in technology changes not simply the archiving process, but what is archivable—that is, the content

⁹⁴ Cook, "Evidence, memory, identity, and community," 102.

⁹⁵ Joan Schwartz, "Archives, Records, and Power: The making of modern memory," *Archival Science*, vol. 2 (2002): 85.

⁹⁶ *Ibid.*, 172.

⁹⁷ *Ibid.*, 182.

⁹⁸ *Ibid.*, 183.

of what has to be achieved is changed by the technology.”⁹⁹ In agreement to conceptions regarding the postmodern archive, Ketelaar furthers that any archival document means nothing until intention, whether by the archivist or the researcher, attaches meaning to it. “Scholars are not, can never be, exterior to their objects...[The document] does not speak for itself neither because it merely echoes what the researcher whispers. It only tells what the researcher wants the document to tell him or her.”¹⁰⁰

But while the connection between the archive and the writing of history, and at this point the writing of social histories, was an accepted part of the process, the inability of social historians to voice their needs that would directly influence the appraisal and acquisition strategies became evident. Fredric M. Miller, in 1981, expressed his frustration in his article “Social History and Archival Practice”:

The surviving universe of documentation is as much a function of appraisal as of acquisition strategies. The new social history may require not merely a modification of existing appraisal standards but a fundamental change in our whole way of thinking about the subject. Revised criteria could apply not only to future acquisitions but also to materials currently being received and processed, in which the potential research value for social history is obscured by traditional evaluation.¹⁰¹

He furthered that American principles of appraisal were of recent development and therefore more cognizant of social and economic themes, but they are ultimately products of the kind of history done in the late nineteenth century and thus gave more weight to description of institutional life than to the experience of people involved or affected by the institution.¹⁰² And as observed in the SAA manual on appraisal theory, Maynard Brichford outlined the importance of appraisal theory as “the most significant archival function” but also “the greatest professional

⁹⁹ Eric Ketelaar, “Tacit narratives: The meanings of archives,” *Archival Science*, vol. 1 (2001): 134-135.

¹⁰⁰ *Ibid.*, 139.

¹⁰¹ Fredric Miller, “Social history and archival practice,” *The American Archivist*, Vol. 44, No. 2 (Spring, 1981): 113.

¹⁰² *Ibid.*, 115.

challenge to the archivist.”¹⁰³ In his thorough attempt to lay out a logistical answer to the conundrum that was appraising, he furthers that “research may be paralyzed either by unwitting destruction or by preserving too much.”¹⁰⁴ But, as he further contends, at the point of his manual's publication, the special obligation to promote serious study of institutional records made the archivist an advocate of institutional history in a transitional period toward social histories.

But, as a critique of postmodernist theory, there is a reversion of archival theory from Schellenberg’s place of logistical solution back to a theoretical space that, as a Jenkinsonian application purports, exacerbates the problem. So what solutions were offered in this “questioning paradigm?” As the name suggests, the questioning offered a variety of solutions that were not always conducive with each other.

Brothman, mentioned previously, was perhaps one of the most influential archivists that forged appraisal theory and post structuralist philosophy. As Brothman found, archivists do not preserve records of value; they actually create value, their own orders of value (in terms of Schellenberg) by putting records in their order, by making places for them, and ultimately, by describing them and providing public access.¹⁰⁵ If archivists create value by making places for records, it seems there would need to be a means of accountability as the archivists are in positions of power and authority over societal records.

Many examples are now coming to light of archives collecting material not to keep the best juridical evidence but to serve historical and symbolic purposes. However, the voices being

¹⁰³ Maynard J. Brichford, *Archives & Manuscripts: Appraisal & Accessioning* (Chicago, IL: The Society of American Archivists, 1977), 1.

¹⁰⁴ *Ibid.*, 3.

¹⁰⁵ Brein Brothman, “Orders of Value: Probing the Theoretical Terms of Archival Practice,” *Archivaria* 32 (Summer 1991): 79.

preserved still resoundingly fall to those figures and events judged worthy of celebrating, or memorializing, within the context of their time.¹⁰⁶ But who is worthy? And who determines worthiness? According to what values? And what happens when the values and the determiner change over time? And who is deemed unworthy and forgotten, and why? Historical examples, in summary, suggest that there is nothing neutral, objective, or “natural” about this process of remembering and forgetting.

While postmodernism is often paralyzing, and can often be a slippery slope to nihilism, postmodernism and modern archival science need not be incompatible. The archive has historically been concerned with contextuality—with not only preserving the object but also its provenance, original order, etc.—that is wholly compatible with postmodernism’s concerns regarding contemporary contexts and experiential relativity. Also, while we have established that the role of the archivist, and the necessity of their objectivity, has never been entirely agreed upon, with the advent of postmodernism and its entrance into the archival space, there is a call for the archivist to be conscious of their reality and begin transforming their role as an archivist to employ social justice mindsets into their collecting practices and appraisal theory. But unless the archive becomes more transparent to its users now and in the future, and until the archive’s internal policies, collecting scopes, appraisal records, and record provenance become available to the researcher, postmodernisms relevance to the profession will become increasingly remote.

¹⁰⁶ Gerda Lerner, *Living with history/making social change* (Chapel Hill, NC: University of North Carolina Press, 2009), 14-17.

2.9 #thatdarnarticle: Socially Conscious Collecting Policy and Social Justice

In August of 2019, Twitter erupted with the hashtag “#thatdarnarticle.” Frank J. Boles, in a released preprint of *The American Archivist*, published the article “To Everything There Is a Season” that sought to reevaluate the “professional obligation” of archivists to create a universal record of human activity and to reevaluate if social justice should inform archival selection decisions. He suggests that the three ideas that ennoble both archivists and their professions, universal documentation, social justice, and archival power, are of “less substance than their proponents suggest.”¹⁰⁷ He argues, much like this chapter has illuminated, that the lack of practicality for many of the proposed archival theories have been their nail in the coffin. In his postmodern connotations, he furthers that an archivist’s goal to obtain morally responsible representation of a contemporary moment is arbitrary because morality is relative and accurate foresight is unachievable.¹⁰⁸ And “thus one must ask, how will archivists operating in real time decide what constitutes social justice?”¹⁰⁹ And how should we mitigate the realities of one’s personal moral understanding of what constitutes social justice producing a self-serving agenda?

But the reaction to Boles’ article was more revealing into the role contemporary archivists see themselves occupying. On Twitter, archivists in the community hurled accusations like “reverse racism” and “white male privilege” at Boles as well as the Society of American Archivists for their role in publishing an article containing this material. One archivist wrote, “It is a mark of intense privilege to have spent your life in the archival world and failed to understand that archivists are political actors, our decisions ALWAYS have political consequences, and not doing anti-oppression work means oppression continues abetted by

¹⁰⁷ Frank Boles, “To Everything There is a Season,” *The American Archivist* Vol. 82, No. 2 (Winter 2019): 8.

¹⁰⁸ *Ibid.*, 8.

¹⁰⁹ *Ibid.*, 10.

you.”¹¹⁰ Another reviewer, Taylor Kelley, added “In the future, instead of publishing reactionary old man yells at cloud articles about how social justice is bad, publish more work from Black/Latinx/indigenous/LGBTQ+ archivists about literally anything else.”¹¹¹ While I, too, find this article disheartening and egregious, especially coming from the mouth of a leader in archival science, it is interesting that the archive profession has not been able to remove itself from Jenkinson/Shellenberg-esque debates of unattainable lofty goals versus practical solutions.

Mia Steinberg wrote, “archives aren’t neutral, neither are archivists, and the active questioning of our existing frameworks—even and especially if it leads to dismantling them—is the only way our profession can ever achieve the lofty goals we make for it.”¹¹² I, too, suggest that archival science should view archival ideas, strategies, and methodologies over the past centuries, and from here on into future centuries, as concepts that are constantly evolving, ever mutating, continually adapting, because of radical changes in the nature of records, record-creating structures, organizational and work cultures, societal and institutional functions, individual and personal record-keeping predilections, institutional record-keeping systems, contemporary record uses, and the wider cultural, legal, technological, social, and philosophical trends in society. Archivists need to be able to research, recognize, and articulate all these radical changes in society and then deal conceptually with their impact on archival theory, methodology, and practice. This philosophy will be even more essential when moving into discussions about the archivist’s role in discerning importance in a digital world.

¹¹⁰ Anna J. Clutterbuck-Cook, Twitter post, Aug. 2, 2019, 5:30 a.m., <https://twitter.com/feministlib/status/1157267537517785090>.

¹¹¹ Taylor Kelley, Twitter post, Aug. 2, 2019, 11:52 a.m., <https://twitter.com/archivesdork/status/1157363452689690624>.

¹¹² Mia Steinberg, Twitter post, Aug. 3, 2019, 1:37 p.m., <https://twitter.com/MiaSteinberg/status/1157752434267021312>.

CHAPTER 3

AN OVERVIEW OF EARLY DIGITAL PRESERVATION EFFORTS AND SUGGESTIONS FOR SUCCESSFUL AND RESPONSIBLE DIGITAL APPRAISAL

It is relatively easy to discern the start of our digital age that necessitated digital preservation to ensure that our digital heritage is maintained and accessible. The 1990s marked an exponential increase in the number of users of personal computers and thus an exponential increase in the number of digital objects produced. And while there have been archivists and advocates of digital preservation from the beginning of our digital age, their numbers, and subsequently their efforts, are limited. With the increasing speed of innovation regarding our digital technology—like software updates, new file formats, new hardware—the state of the object’s accessibility is constantly challenged. But while there has not been enough done to keep up with our digital production in the archival space, that does not mean there has not been advancement in the field of digital preservation. And while there has been a tendency to treat digital preservation as a “new frontier” or “pilot projects,” the ephemerality of digital objects and the reality of inaccessibility has been on the mind of alarmingly few since the digital medium became a tool to create our digital heritage. It has consistently proved that producing and providing preservation techniques that can and will outlast our current technology is fundamentally challenging and, at this point, overwhelming and costly.

From its origin, digital preservation has been and continues to be, in its very essence, a collaborative endeavor. Because archival theory, standards, and policy are only as good as their tangible offerings, soliciting proposals, opinions, and experiences from ground-level operations was not only imperative but the only way to establish feasible and practical solutions to

unfamiliar problems. Too, because the digital infrastructure was so interweaved, success in digital preservation relied on a standardization of vocabulary, programs, policy, and practices. This chapter focuses on the chronology of digital preservation programs, policies, and technologies in the United States.

This chapter will be at times technologically dense, as it is necessary to know exactly the origin of digital preservation and the intellectual conversations surrounding early attempts to preserve digital heritage. However, as the previous chapter asserted, the lack of consensus regarding archival science, the role of the archivist, and the value of records has been historically contentious and constantly renegotiated. As the Jenkinson-Schellenberg debate revealed, objectivity was never an achievable goal within the archive and within appraisal theory; revealed through the application of postmodernism on the archive, the archivist must be aware of the powerful realities regarding biased collecting and the power relation the archive has to disenfranchised and underrepresented groups. These early conversations regarding archival science and appraisal theory directly transition into the digital space; Jenkinson and Schellenberg were divisively incompatible on one point—how to determine which records were worth keeping. It is that exact question that digital archivists face now but to a greater degree and in greater volumes. But while digital preservation necessitates some of the same questions on new mediums, as I will argue later in this chapter, there are new problems with digital preservation that are not analogous to problems faced by archivists of the past. So, while the Jenkinson-Schellenberg debate, and the intellectual history of American archival science, can apply to materials created in the Digital Revolution, there is more to digital preservation than the history of appraisal theory can contend with.

Since their conception, digital preservation efforts have sought to tackle the question of technological feasibility as opposed to cultural necessity meaning instead of focusing on the ways in which digital archivists should uphold responsible appraisal decisions (which was, as I assert in the previous chapter, the most important question to archival science in the past), digital preservation was more a question of what technologies were necessary to make these born-digital records preservable in perpetuity. To an extent, this makes sense for the moment. As we will see in this section, the advent of digital records required a rethinking of what it meant to archive. Instead of putting papers in boxes or books on shelves, early digital efforts were experimental. The mediums of these records were new and ephemeral and breakable. While physical archives storing analog records were still finding their footing in realms of social justice and responsible appraising, digital preservation had different problems to face.

Later in this chapter, I propose that we must step away from this type of technological fixation when thinking about digital preservation. As of now, the technological standards and best practices in place for digital preservation are adequate; the pressing question, moving back to what I propose as the single most important question to archival science, is where do we place value in collecting? And, just as the role of the archivist has been constantly debated since the character of the archivist has been conceptualized, who has the authority, the insight, and the foresight to make those appraisal decisions? As mentioned earlier, digital mediums bring a host of new, unique problems that must be discussed to not only know what to preserve but also the ways in which it needs to be preserved.

3.1 History of American Digital Preservation Efforts

Strides to provide clarity and substantial plans for digital preservation began in the US in 1994, five years after the advent of the mass-consumed World Wide Web. The Commission on Preservation and Access (CPA) and the Research Libraries Group (RLG) were contracted with “identifying impediments to long-term preservation efforts and make recommendations for solutions.”¹¹³ After two years, the Task Force on Archiving of Digital Information, composed of the CPA and RLG, produced a lengthy report titled “Preserving Digital Information.” This group’s goal was to find ways to store records in the digital form.¹¹⁴ They discerned that media deterioration and technological obsolescence as the biggest threat to successful digital preservation.

Perhaps most monumentally, this report grappled with determining the viability of a concept referred to as “technology refreshing,” a system of moving objects from old storage media to new versions of the same media; they determined that the best course of action would be a method called “migration,” which refers to the idea of moving digital objects to entirely new software and hardware environments for the longest preservation.¹¹⁵

Problematically, as outlined by the multitude of reviews for the report, the Task Force was uninformed and misguided which resulted in a solution qualified by “more research necessary.” In their attempts to counteract digital ephemerality, they inadequately contended with long term preservation tactics.¹¹⁶ In their attempts to validate the viability of migration, they

¹¹³ Erin Baucom, “A Brief History of Digital Preservation,” *Mansfield Library Faculty Publications*, No. 31 (2019): 195.

¹¹⁴ The Commission on Preservation and Access and the Research Libraries Group, “Preserving Digital Information: Report of the Task Force on Archiving of Digital Information,” 1996, iii, accessed October 17, 2019, <https://www.oclc.org/content/dam/research/activities/digpresstudy/final-report.pdf>.

¹¹⁵ “Preserving Digital Information: Report of the Task Force,” 27-32.

¹¹⁶ D. Bearman, “Preserving Digital Information: A Review,” *Archives and Museum Informatics* Vol. 10 (June 10, 1996): 150-155.

wrongly assumed that migration results without loss of integral information. But as observed by several reviewers of the report, migration “almost always involves some loss.”¹¹⁷ Agreeing what kinds of losses are acceptable for what kinds of records and information are a critical factor in determining the viability of any given strategy.”¹¹⁸ What D. Bearman, a reviewer, identified as the real problem was identifying what information was essential when moving objects across time; was it just their ideas and content, or did people interacting with objects of the past need to interact with them in their original state? What exactly did preserving the integrity of a digital object mean? Is it only necessary to save the information or the entire record?

In 1996, Brewster Kahle, founder of the for-profit Alexa Internet, Inc., used the same technology created for web traffic analysis to systematically crawl and preserve webpages. This was and is by far the most pervasive and successful attempt at preserving web heritage on a large scale. Created with the stated goal of creating an “Internet Library,” one of the motivating factors was the transitory nature of the Internet, and the World Wide Web in particular. The Internet Archive collaborated with other institutions including the Library of Congress and the Smithsonian Institution to preserve records since 1996, but in 2001, the nonprofit flagshiped an experimental program, The Wayback Machine.

The Wayback Machine is part of the Internet Archive (www.archive.org), which amasses websites, moving images, texts, audio, and recently, educational resources. Drawing upon results from the Alexa webcrawler, this U.S.-based non-profit organization permanently stores publicly accessible websites in an enormous digital archive. Via the WM, users can view the original version of each site, as well as the dates and content of subsequent updates. The WM then returns the date of original site creation, number and date of site updates, and links to archived

¹¹⁷ *Ibid.*, 152.

¹¹⁸ *Ibid.*, 150.

sites. The machine relies on both systematic crawls of the web as well as some interventional crawls, however, the sheer amount of material preserved without useful organization makes any research entirely overwhelming and at times undoable. One of the services that the Internet Archive provides is Archive-It. The Archive-It service was launched in 2006 as an international subscription service that helps organizations create archival collections of web content. The collections are full-text searchable and are stored in the IA's data centers.¹¹⁹

In 1990, the International Standards Organization (ISO) requested the Consultative Committee for Space Data Systems (CCSDS) to start “developing formal standards for long-term storage of digital data generated for space missions.”¹²⁰ What resulted from this was far larger and more prolific than intended. In 1997, they released the first draft of the Open Archival Information System (OAIS) Reference Model. It gave guidance to exactly what types of information were necessary to preserve in these types of projects. The OAIS model “described the concept of an archival package which includes the digital objects and their accompanying reference information, context information, provenance information, fixity information, and access information as described by the metadata.”¹²¹ As Joyce Ray wrote, “. . . a digital repository is not just any data storage system. To be trustworthy, it must be managed with the intention of long-term use and in accordance with archival principles of authenticity, integrity and provenance.”¹²² It basically acted, and still acts, as a framework for the entire digital preservation process. But even though the OAIS model was available to whichever repository

¹¹⁹ Don Sawyer, “Report Concerning Space Data Systems Standards: Reference Model for an Open Archival Information System,” NASA, April 1997, accessed Sept. 27, 2019, <https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19980211383.pdf>.

¹²⁰ *Ibid.*, 8.

¹²¹ *Ibid.*, 4-9.

¹²² Joyce Ray, “The Rise of Digital Curation and Cyberinfrastructure: From Experimentation to Implementation and Maybe Integration,” *Library Hi Tech* 30, no. 4 (2012): 608.

needed guidance and technological direction, individual repositories still could not transition fully.

Though there was a national strategy and standards in place for digital preservation, and while a few large institutions were beginning to grapple with building their own digital repositories, most cultural and small-scale organizations wanted specific and targeted guidance regarding either developing their own local repository or seeking a third-party repository service.¹²³ In a study and survey published in Margaret Hedstrom and Sheon Montgomery's *Digital Preservation Needs and Requirements in RLG Member Institutions*, "two-thirds of respondents had assumed responsibility for digital information but 42% of those institutions reported they lacked the operational and/or technical capacity to mount, read, and access some digital material in their holds."¹²⁴ Out of the cultural organizations that responded, three-fourths responded that irreplaceable information would be lost if their digital materials were not adequately preserved.¹²⁵ While stakes were universally acknowledged as high, there was, at this point, a lack of consensus in the community regarding a preferred digital archiving structure.

As a response, and due to the creation of the OAIS Reference Model shortly preceding, the RLG, partnered with the Online Computer Library Center (OCLC), created a report that directly defined and designated whose responsibility it is to maintain the preserved records and whose responsibility it is to provide access to it.¹²⁶ In the report titled *Trusted Digital Repositories: Attributes and Responsibilities*, the OCLC and RLG for the first time focused on

¹²³ Margaret Hedstrom and Sheon Montgomery, "Digital Preservation Needs and Requirements in RLG Member Institutions" (report commissioned by the Research Libraries Group, Mountain View, CA, Jan. 1999), 1, accessed October 11, 2019, <https://pdfs.semanticscholar.org/f87a/e50af20b33493edf37cc0145ac92f3702faf.pdf>.

¹²⁴ Hedstrom, Montgomery, "Digital Preservation Needs," V.

¹²⁵ *Ibid.*, 12,

¹²⁶ "Trusted Digital Repositories: Attributes and Responsibilities" (study and report conducted by the Research Libraries Group, Mountain View, CA, May 2002), 3, accessed Oct. 14, 2019, <https://www.oclc.org/content/dam/research/activities/trustedrep/repositories.pdf>.

authenticity, trust, and integrity in relation to their designated community, defined as “an identified group of potential users of the archives’ contents who should be able to understand a particular set of information.”¹²⁷ An understanding of this community informed decisions about what to preserve, not only those of current users but also of those far into the future. The most illuminating part, though, of this report consisted of its discussions about ownership of digital materials and how that translates into the material’s preservation.

Responsibility for preservation had traditionally been considered alongside ownership; the owner of the materials was responsible for determining their life span. Ownership of digital materials is not that simple. If we are to follow Jenkinson’s idea of record value, relying solely on the creator or producer to preserve their own material would be the only responsible, objective way to preserve the material. Reliance solely on creators or producers of digital materials for long-term preservation is risky, not least because digital resources are not generally created or engineered with long-term preservation in mind. This report recommended research repositories work closely with content creators to ensure responsibilities and licensing agreements are clear. In cases of digital publishing and software suppliers, the responsibility was less ambiguous.¹²⁸ In terms of content creation at a more public level, it remains unclear how preservation infringed on copyright and privacy.

As new technologies and guidelines for digital preservation developed, there was a noticeable grey area regarding whether or not digital preservation infringed on prior copyright law. In 1996, the international WIPO Copyright Treaty (WCT) was created to address the rights of computer program and database creators. To simplify the treaty, what was really at stake for digital preservation was that these types of preservation efforts infringe on one’s ownership of

¹²⁷ *Ibid.*, 3.

¹²⁸ “Trusted Digital Repositories,” 18.

digitally created material. To thwart unwanted infringement, the treaty created encryption measures and digital rights management software to protect the creator, however this software interfered with tools used to stabilize digital objects when they underwent preservation. Though an international treaty, there was leeway; the treaty used specific language that allowed individual nations to manipulate the treaty to fit national law which also allowed for manipulation in the name of digital preservation.¹²⁹

In an effort to conform U.S. copyright law to the WCT, the U.S. Congress passed the Digital Millennium Copyright Act (DMCA) in 1998. Though the DMCA required these encryption methods to be respected, exemptions through formal request could be made for digital preservation.¹³⁰ While this law aligns the United States with international copyright standards, it does increase the burden on U.S. institutions to request exemptions and more strictly define fair use when preserving and providing access to digital collections.¹³¹

Because preservation storage that adheres to OAIS and TDR was expensive and an unrealistic option for repositories with limited resources, the Digital Preservation Network (DPN) was founded in 2012. It was a collaborative project that shared the knowledge and use of technology, expertise, and financial resources to create an enduring service. (It unfortunately announced its disbanding in 2018 due to financial distress and has begun its “orderly winddown of the DPN.”)¹³² Within the DPN, local repositories became contributing nodes, which ingest new forms of scholarship and new collections. DPN created several federated, replicating nodes, which were digital repositories for the contributing nodes with a specific focus on long-term

¹²⁹ World Intellectual Property Organization, “WIPO Copyright Treaty” (treaty, Berne Convention in Switzerland, 1996), accessed October 11, 2019, https://www.wipo.int/edocs/lexdocs/treaties/en/wct/trt_wct_001en.pdf.

¹³⁰ US Copyright Office, “The Digital Millennium Copyright Act of 1998” (law, Washington, Dec. 1998), 15, accessed Oct. 16, 2019, <https://www.copyright.gov/legislation/dmca.pdf>.

¹³¹ *Ibid.*, 13.

¹³² H. Highland, “The DPN Vision,” The Digital Preservation Network, DPN, 2013, <https://web.archive.org/web/20130114092459/http://www.dpn.org/about/>.

preservation. The replicating nodes contain redundant, dark copies of all deposits that could be brightened in cases of catastrophic loss. The diversity of the DPN nodes mitigated the risk of a single point of failure. Objects and metadata were replicated across nodes that embody organizational, technical, physical, and political diversity.¹³³ A single point of failure could not jeopardize centuries of scholarship.

Despite theoretical advances in digital archiving, there are practical limitations (the same narrative we saw in the Schellenberg-Jenkinson debate) as pointed out by Mike Kastellec. Quickly antiquated technology, data redundancy, selection criteria, access issues (virtual, physical), a discombobulated legal structure, and funding all contribute to the difficulties of establishing a digital archives.¹³⁴ Gaur and Tripathi specifically commented on preservation issues asserting that “...digital publication deteriorates much faster than paper. A digital object may be corrupted or lost and thus become irretrievable. But even before that happens, the technology used to store the publication is likely to become obsolete.”¹³⁵

Really, what has been the largest question regarding digital preservation is sustainability. As described in Ross Harvey’s and Jaye Weatherburn’s *Preserving Digital Materials*, sustainability has been thought of in primarily two ways: one, sustainability in terms of financial and labor resources and two, sustainability in terms of environmentally consciousness.¹³⁶ Even more, the capitalist nature of technological innovation has resulted in built-in, intentional obsolescence that further hinders sustainability. Aleida Assman too finds stability and sustainability an uphill battle; she describes that with analog records, there were similar

¹³³ *Ibid.*

¹³⁴ Mike Kastellec, “Practical Limits to the Scope of Digital Preservation,” *Information Technology and Libraries* (June 2012): 63–70.

¹³⁵ Gaur and Tripathi, “Digital Preservation,” 293–301.

¹³⁶ Ross Harvey, *Preserving Digital Materials* (Landham, MD: Rowman & Littlefield, 2018), 27.

phenomena regarding permanence and ephemerality. Physical texts that were destined for permanence were created with a resilient structure.¹³⁷ Similar connections can be made regarding born-digital material.

There is also a gross misrepresentation surrounding the cost of digital preservation. “Administrators commonly believe that a digital archive is cheaper and less work intensive than a physical archives.”¹³⁸ Becker found that the constant migration onto new platforms or stable formats, the software emulation, the maintenance of old hardware, the digital backups, the metadata production all compounded into often too large of commitments for individual repositories.¹³⁹ Lee and Tibbo supported this assertion:

In contrast to caring for analogue materials, digital curation brings a wide array of opportunities and challenges. Opportunities include both wider and integrated access, representation of an increased range of human experience, persistence through redundant copying, economies of scale, and enrollment of collective expertise. Challenges include bit rot, obsolescence, social inertia, technology monitoring, intellectual control, access environments, and the ability to convey meaning over time.¹⁴⁰

That means that digital preservation finds itself in the same predicament Schellenberg did: practicality versus theory. As Joseph Williams and Elizabeth Berilla offer, “a middle ground of digital content management must be contemplated. Because of their own idiosyncrasies, institutions must cherry pick among best practices for what works for them...every institution must develop a unique plan.”¹⁴¹

¹³⁷ Aleida Assman, *Culture Memory and Western Civilization: Arts of Memory* (New York: Cambridge University Press, 2001), 337.

¹³⁸ Joseph Williams and Elizabeth Berilla, “Minutes, Migration, and Migraines: Establishing a Digital Archives at a Small Institution,” *The American Archivist* Vol. 78, No. 1 (Spring/Summer 2015): 84.

¹³⁹ Devin Becker and Collier Nogue, “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): 483.

¹⁴⁰ Christopher A. Lee and Helen Tibbo, “Where’s the Archivist in Digital Curation? Exploring the possibilities through a Matrix of Knowledge and Skills,” *Archivaria* Vol. 72 (Fall 2011): 127.

¹⁴¹ Williams and Berilla, “Minutes, Migration, Migraines,” 12.

In an effort to create a unified understanding of the need for digital preservation for the entire international community, UNESCO published its Charter for the Preservation of the Digital Heritage in 2003. The charter reiterated that digital objects are inherently fragile and attempted to offer suggestions to this digital preservation conundrum, however these efforts fizzled out until 2012. In 2012, at the UNESCO Memory of the World Program Conference, it was reemphasized with new urgency that a concentrated, unified international effort for the preservation of and access to digital heritage be made. This led to the creation of the PERSIST program in 2013.¹⁴²

The PERSIST project is a subprogram of the UNESCO Memory of the World Program. This program was created to preserve the world's documentary heritage, make this heritage universally accessible, and raise awareness of the importance of our documentary heritage.¹⁴³ In partnership with the International Council on Archives and the International Federation of Library Associations and Institutions, UNESCO raised awareness of digital preservation through three working groups: policy, technology and content, and best practices. These three groups working in concert attempted to develop systems, policies, and best practices that could be used by each UNESCO member at the local and national level according to its own laws and cultural needs to preserve the digital artifacts of its history.¹⁴⁴

In 2016, the UNESCO/PERSIST Task Force released a nineteen-page document filled with their recommended guidelines for the selection of digital heritage, or in short, appraisal. The key challenges they found digital archivists contending with were legal impediments to

¹⁴² UNESCO/PERSIST, "Survey on national/federal policies and strategies on the preservation of digital heritage (survey results, United Nations Educational, Scientific, and Cultural Organization, 2017), accessed Sept. 12, 2019, <https://unescopersist.files.wordpress.com/2017/09/reportsurveypersistpoliciesstrategies-1-5.pdf>.

¹⁴³ *Ibid.*, 7.

¹⁴⁴ *Ibid.*, 3.

preserving and accessibility, authenticity of digital record, and the sheer amount of content. They foresaw individual repositories interacting with three collecting methods: one, comprehensive collecting which is used to acquire all the material produced on a given subject, two, representative sampling that is more fitting for repositories that do not have the ability to collect comprehensively and therefore selecting in order to capture a representative picture, and three, selection where “heritage professionals” identify material for addition to their collections based on specific criteria (primarily defined by their collecting or acquisition policy.)¹⁴⁵ But the ambiguity of these recommendations offered little concrete applicable changes for institutions establishing digital preservation practices, and the following year, UNESCO realized the lack of consensus and understanding in the archival community.

In a 2017 survey conducted by UNESCO PERSIST revealed that though the problem of digital preservation has been confronted on a national level, on a private level, on a collaborative level since the mid-1990s, many archives, libraries, and other memory institutions are aware of the need to collect and preserve digital heritage, “yet they cannot find solutions on their own.”¹⁴⁶ Though the sample size was regrettably small, 66% of the respondents reported that their country has no written and cross domain national or federal strategy. Few respondents commented that they are working nation-wide on how digitized cultural heritage will be preserved and made accessible in the long term. In some countries, there is the problem of long term digital preservation closely related to the significant financial investments needed of which archives, libraries and museums cannot afford.¹⁴⁷ The majority of the respondents (90%) suggest that the government should play an active role in national digital preservation strategies and policies.

¹⁴⁵Sarah Choy, Nicholas Crofts, and Robert Fisher, “The UNESCO/PERSIST Guidelines for the selection of digital heritage for long-term preservation” (report, UNESCO/PERSIST Content Task Force, March 2016), 8.

¹⁴⁶ UNESCO, “Survey”, 3.

¹⁴⁷ *Ibid.*, 24.

Several comments were made that the task of digital preservation is too big for individual institutes.¹⁴⁸ But really, what this survey proves is that while the digital world has lived and produced for over thirty years, no solidified, substantive plan of action exists to ensure the preservation of our heritage. And while there are autonomous agencies and passionate archivists working towards solutions, this problem, and the ephemerality of digital objects, will inarguably never stop. As our technology continues to transform and innovate, the previously preserved and protected material must undergo migration to these new platforms. Currently there is no end in sight to this cyclical pattern. The unknown cost in the long-term preservation deters financial support of these projects.

3.2 The Great Debate Applied to the Digital Realm

Though historically (as shown in the progression of digital preservation standards, policies, and technologies in the previous section), and really also contemporarily, digital preservation efforts have been technologically motivated, appraisal theory is still such an important part to the role of the digital archivist. As stated previously, the realm of digital preservation confronts the question that Jenkinson and Schellenberg spent their careers trying to answer; how do we define use value to inform appraisal decisions? Now we must ask what does use value mean in the digital space? What does appraisal theory look like in a born-digital world? I would argue that Jenkinson's theories are no longer helpful when thinking about records produced within this Digital Revolution. The goal of objectivity is no longer realistic, and the belief that appraisal should not be a part of the archivist's role is truly unfeasible. While Schellenberg's theories of collection management is more feasible and applicable when speaking

¹⁴⁸ UNESCO, "Survey," 24.

about the sheer amount of digital records and information produced by the second, and while viewing the role of the archivist as intrinsically entangled with appraisal decisions is essential in digital preservation, it is not an infallible transition from Schellenberg's analysis of analog records to our contemporary problems regarding digital preservation. The advent of born-digital records has fundamentally changed the ways we have to approach digital appraisal theory.

While Jenkinson's theories, as chapter two asserts, did not find success in traditional paper archives, they are almost entirely incompatible in the digital realm. There are three parts of Jenkinson's manual that could and should remain moving into digital preservation: one, that records donated from a single entity should be kept as a collection, two, that, as much as possible, records should be kept in their original order, and three, that no part of the collection should be mutilated or altered unauthorized.¹⁴⁹ But these notions only apply to digital records that resemble those of analog pasts. For example, Emory University, in 2007, purchased the Alice Walker Papers that not only contained what we traditionally think of as archival records (i.e. correspondence, publications, scrapbooks, photographs, etc.), it also contained born-digital materials. This collection, because of its provenance—because its material was all created and kept by a singular person—could follow Jenkinson's views of correct archival science. The floppy disks, MacBook, and CDs had value ascribed to them when Walker chose to firstly keep the materials and secondly give them to an archival repository. This collection, and collections of similar contents and provenance, are analogous to analog records and thus will be subject to similar conversations and conventions of early archival appraisal.¹⁵⁰

¹⁴⁹Jenkinson, *Manual*, 62.

¹⁵⁰ Elizabeth Russey, Brittney Cooper, Alizabeth Stice, and Brenda Tindal, *Alice Walker Papers [finding aid]* (Atlanta, GA: Stuart A. Rose Manuscript, Archives, and Rare Book Library, 2009), accessed March 10, 2020, <https://findingaids.library.emory.edu/documents/walker1061/>.

Moving into Schellenberg's theories and critiques, like the spatial constraints of 1956, there is, currently, no environmentally responsible or technologically feasible way to preserve all of our digital material; whether it be floppy disks, compact discs, websites, social media posts, internet videos, etc., Schellenberg's view of selection is more pertinent now than ever before. Permanent preservation should not be decided by the creator of the record but be based on the value of the record, both primary and secondary; while in corporate and business archives, digital records may be classified in Schellenberg's "primary value"—based on their usefulness as evidence for the creator—since the shift in postmodernism to Social and Cultural History, "secondary value"—related to its historical and cultural functions—is now more than ever at the heart of appraisal decisions. However, both Schellenberg and Jenkinson relied somewhat on the archive's organic nature of statically receiving material. While acquisition policy has also been around since Jenkinson's manual, the archive has, for the most part, acted as a receptacle to receive donors' records. That, too, fundamentally changes the digital realm.

Terry Cook's macroappraisal theory is perhaps the most tangible but also potentially problematic theoretical approach to digital preservation. In 2005, Cook published a case study regarding macroappraisal of Canadian governmental records at the National Archives of Canada in an attempt to systematically but responsibly dispose of unnecessary, unvaluable records and help mitigate the real problems of archival bulk. A process Cook both coined and launched in the 1990s, macroappraisal is a rethinking of traditional Schellenberg-esque appraisal theory that, Cook asserts, places too much emphasis on use-value and results in "a selection process so random, so fragmented, so uncoordinated, and even so often accidental...[one] that too often reflected narrow research interests rather than the broad spectrum of human experience."¹⁵¹ But

¹⁵¹ Terry Cook, "Macroappraisal in Theory and Practice: Origins, Characteristics and Implementation in Canada, 1950-2000," *Archival Science* Vol. 5 (2005): 120.

if the archivist had traditionally put too much weight on the actual content of the material (which under Schellenberg's focus on administrative records would make sense), what was the solution to the question of appraisal? Cook argues that an archive and archivist must:

ignore the physical and concentrate on the conceptual: forget the recorded "products" and focus on the "process" of their creation and contemporary use. Understand the creation and authorship of records, their animating functions and activity, their transmission and system interconnections, ... and the importance or value of the resulting records will almost be self-evident...Because early archival theory arose from rules developed for physically arranging and rearranging old records in the stacks, the physical character of archives had achieved almost sacrosanct status in the profession. Given the immense volumes of modern paper records and the transient nature of their random-stored electronic counterparts, however, the profession would only survive in future by downplaying the physical and asserting the conceptual character of archives.¹⁵²

In simpler words, appraisal was no longer on the basis of the content of the record but the context and condition under which the record was produced. And faced with the pressures of Social History, the attempt to document "society" through records (primarily at larger institutions) was the task for macroappraisal; following sociologists recommendations, Cook determined that all societies reflect a three-way interplay of social structures, social functions, and citizens. In tangent with the previously three structures, Cook saw three interrelated entities: one, the creators of the records, two, the socio-historical processes, and three, the citizens, as essential to understanding and placing value on records. Thus, these three interrelated spaces require the "archivists to research the nature of these agents and acts...to assign greater importance...to certain functional-structural factors and sites and interactions as compared to others."¹⁵³ In simpler terms, and the most applicable to digital platforms, macroappraisal is a

¹⁵² *Ibid.*, 123-124.

¹⁵³ Cook, "Macroappraisal," 128.

provenance-based approach that looks at the social context of a record's creation and its contemporary use (not its anticipated research use) to establish its relative value.¹⁵⁴

Cook's focus on contemporary use value offers a nice, comfortable reprieve from postmodernism's uncertainty, however, appraisal cannot and should not be completely removed from a record's value to the future. While macroappraisal is helpful because it mitigates the concern of not knowing exactly what future use-value looks like, critics of this theory find it "ineffective and [could potentially] lead to loss of vital information."¹⁵⁵ While it deals with collections management in bulk, and does require less time than microappraisal, it has a tendency to let important material fall through the cracks. With such immense reliance on provenance, the anonymity and ambiguity of web-born material poses antithetical to Cook's presumptions. There must be a middle ground between Schellenberg and Cook that asserts use-value for contemporary and future research as both equally important to appraisal decisions.

3.3 The Digital Revolution and "Web-born" Material

As mentioned in my previous discussion of Walker's papers, there is born-digital material that is analogous to its analog ancestors. Born-digital sources that have an identifiable provenance that are donated as a single collection—emails, Microsoft Word documents, digital photographs, spreadsheets, digital files, flash drives, etc.—are easily treated under similar appraisal standards as analog records. Perhaps the only thing that would change is how they will be both stored and made available to researchers. Within that realm of digital sources, the debates of the past archivists are not far removed. But what is truly revolutionary about this

¹⁵⁴ *Ibid.*, 128.

¹⁵⁵ Lekoko Kenosi and Trevor Moatlhodi, "The Determination of Value in Archival Science and the Ever Evolving Theories of Records Selection," *The Easter Library* Vol. 23, No. 1 (2012): 32.

“Digital Revolution,” and what I propose we redirect efforts towards is something I am calling “web-born” sources.

Web-born sources have not only completely new meanings to digital preservation but also to the discipline of history, which I will extrapolate on in chapter four. But in terms of digital preservation and the web, appraisal theory fundamentally shifts from the conversations between Jenkinson and Schellenberg. Oftentimes, the creator is unaware that material is being preserved, which automatically excludes Jenkinson’s definition of value from the conversation. Again, while Schellenberg’s theory of appraising is potentially helpful because it contends with massive amounts of material, and the fact that Schellenberg reevaluated the role of the archivist to be active shapers of the documentary heritage, no longer are archivists only contending with administrative records; Schellenberg’s theory becomes faulty when trying to ascribe value in, as Ham determined, a broad spectrum of human experience.

The web is a different entity in and of itself, and strategies for its preservation are difficult to articulate as there are often more questions than answers. Firstly, the preservation of the web is not a bleak history. As mentioned earlier, the Wayback Machine is a perfect example of an experimental pioneering project of digital preservation; as of 2015, the Wayback Machine had achieved more than 445 billion webpages, but it is not completely user-friendly and still, to this day, the archive does not publish a master inventory of all the domains preserved making it extremely difficult for researchers to access preserved information. As of now, users need to have some idea regarding their research, most beneficially the URL of the sought-after website. If this archive is to be helpful for future use, there needs to be some sort of “finding aid” for lack of a better comparison; the digital archivist is not only tasked with preserving web-born material,

they also, like asserted in Jenkinson and Schellenberg's pieces, have some duty to the researcher to facilitate the use of that material.

Though Jenkinson argued that an archivist's first role was to the preservation and protection of the material, their second role was to serve the public, and though Schellenberg placed the duty of the archivist to the public higher on the list of priorities, these sentiments have yet to be adequately resolved for web-born sources. Partly, the archivist has yet to see these sources used in large capacities as historians have yet to begin heavily interpreting these web-born sources; however if Schellenberg argued the necessity to make these records intelligently available and accessible to researchers, and if we are to agree that this is the role of the archivist, that goal has yet to be accomplished. Because of the nature of the Wayback Machine and its systematic crawls of the internet, oftentimes, it contains information unknown to even the creators of the machine.

For instance, in 2016, North Korea's servers mistakenly revealed that it contained 28 websites. It was the first time anyone outside of North Korea gained access to the websites using the ".kp" domain name. A security engineer named Matt Bryant uploaded the information regarding the ".kp" domain name to Reddit where thousands of international users began to explore the webpages finding social networks, a website dedicated to recipes, North Korean movies, and more. While that is interesting by itself, what is more alarming is that though no one had knowledge of the ".kp" domain until Bryant revealed the information, the Wayback Machine had been crawling the websites since 2010. To this day, snapshots of these North Korean websites are visible to users of the Wayback Machine. But not only does this case reveal what exactly systematic crawling of the internet looks like, and the problems that arise when future researchers are confronted with the hundreds of billions of websites still untouched, and at times

unseen, by any human intervention, it also begs an entirely different set of questions regarding ethical collecting, especially on a transnational, global level.¹⁵⁶

Not a question unique to digital sources but magnified exponentially in web-born sources, what does ethically responsible collecting mean if we are reliant on systematic archiving free from human choice and appraisal. Certainly, in this type of digital preservation, there are websites “appraised” as important, as valuable. But how do we contend with ethics when the history of archival science has primarily contended with documents freely and intentionally given for research use (with or without owner stipulations)? Pamela M. Graham, in her guest editorial “Reflections on the Ethics of Web Archiving,” argues that web preservation ethics have been notoriously left out of the conversation. She poses some integral questions regarding web archives and ethical boundaries:

How do we understand and inhabit the roles of creator, curator, collector, steward, and consumer of web archives? Given the potential scope of collecting, what blend of human and automated techniques can make this a more scalable enterprise that still sustains our ethical and collecting principles? How do we build transparencies of practice throughout the entire life cycle of collecting and access to the past web? Finally, on the live web, biases are embedded into both the content and the discovery processes of what we collect. As we move online information from the live web into the more fixed platform of the web archive, how are we replicating and/or intervening in how biases operate?¹⁵⁷

Currently, the Wayback Machine acts under the pretenses of asking forgiveness rather than permission, and it has not been without legal ramifications. In 2005, Suzanne Shell demanded the Internet Archive, the owner of the Wayback Machine, pay her \$100,000 in settlement for archiving her website proface-justice.org for five years. She sought to hold the Internet Archive liable for copyright infringement, breach of contract, civil theft, conversion and racketeering.¹⁵⁸

¹⁵⁶ Anat Ben-David and Adam Amram, “The Internet Archive and the socio-technical construction of historical facts,” *Digital Technology, Culture and Society* Vol. 2, No. 1-2 (2018): 179-184.

¹⁵⁷ Pamela M. Graham, “Guest Editorial: Reflections on the Ethics of Web Archiving,” *Journal of Archival Organization* Vol. 14, No. 3-4 (2017): 104.

¹⁵⁸ “Internet Archive and Suzanne Shell Settle Lawsuit,” Internet Archive, Apr. 25, 2007, accessed March 12, 2020, <https://archive.org/post/119669/lawsuit-settled>.

While courts found the Internet Archive not guilty, it did still beg questions regarding permission and ownership of web-related resources.

Currently, to help mitigate these ethical issues, the Human Rights Web Archive at Columbia Libraries' Center for Human Rights Documentation & Research has attempted to establish best practices. To gain additional voices in appraisal and collecting, they have included a nomination feature that enabled persons or organizations to suggest websites to add in the collection. They also request permission prior to collecting websites, however after multiple attempts to gain permission, a letter of intent to collect is sent with the disclaimer that under any circumstances the owner of the content can have their content removed.¹⁵⁹ In the absence of legal standards for archiving the open web, at least this type of due diligence is necessary.

A distinctly new phenomenon emerges out of the Digital Revolution as well; data analytics and “big data.” Data analytics has often negative connotations because the public perceives the preservation of one’s created data, through web use, as a serious threat to privacy. Whether it be retail and e-commerce studying their customers’ habits to pointedly advertise or capturing web traffic on a tweet, data analytics in contemporary scholarship is currently discussed in the realm of privacy preservation. While the line between data analytics and surveillance is often seen as blurred, these numbers are essential to preserve for future research. Like Cook argues, the content of the source is no longer more valuable than its context; the context of the source has inherent meaning and value. And like Jenkinson and Schellenberg propose, an archivist cannot remove items from their collection, from their singular provenance, and from their original context. Context looks different on the digital platform. It becomes now a question of how the record needs to be saved, how the record will look, how the user will interact

¹⁵⁹ Graham, “Guest Editorial,” 105.

with the record, and what data analytics are necessary to preserve the true meaning and context of the record.

A tweet is a great example for this point; if the only thing important about the tweet is its content, the actual words the author wrote with basic metadata (i.e. the date and time of the tweets publication) a snapshot of the tweet would suffice. However, the content of the tweet is only half of its story; how does the tweet engage with hashtags? Is it responding to a previous tweet? How many comments are on the tweet? How many people saw and interacted with the tweet? What was the advertisement on the right side of the screen? Where did this tweet fall in the search results? The content of the tweet is not the only factor necessary to study the platform; it is important, for instance, to know if one tweet received 52 views as opposed to another that was viewed 280,000 times. Because this data matters, it must be a part of the appraisal decision that is intrinsically unique and new to web-born sources.

3.4 The Trained Digital Archivist

As chapter two confronted the professionalization of the American archivist, the identity of them has been in constant flux, and the role of the digital archivist also lacks the clear-cut answer. In 2014, the Library of Congress published a guest post from Stanford's digital archivist Peter Chan. In an attempt to demystify the necessary skills of a well-rounded digital archivist, Chan looked to both job listings and his own experience to develop a comprehensive list of necessary skills. Divided into two columns, the left reading "Tasks which may fall under the responsibilities of Digital Archivists" and the right reading "Knowledge/Skills/Software/Tools needed to work on the Tasks," Chan depicts a thorough technical analysis of the ideal digital archivist with knowledge of OAIS standards, emulation, migration, computer languages, and

more, however he fails to identify the necessity of appraisal in their job description.¹⁶⁰ While knowledge of technical standards and skills is absolutely necessary to be a successful digital archivist, the Digital Revolution has also fundamentally changed the role of the archivist and their relation to appraisal.

Questions surrounding the professional role of the archivist have never been met with consensus. As mentioned, Jenkinson saw the historian as necessarily absent from the archival world as there was too much risk for subjectivity. Blegen saw academic history as inherently necessary to the archivist's training as appraisal must be based on experience in historical research. Schellenberg, with attention to collections management, found technical skills and records management education completely if not solely necessary. Today, technical skills far outweigh expertise in critical appraisal theory. This is increasingly problematic in the digital space where the digital archivist is expected to actively collect web-born sources as it is entirely irresponsible to rely solely on systematic crawls of the web or public recommendations.

Apart from that, the digital archivist must not only pledge to maintain the authenticity of the records, in similar veins to Jenkinson's theory, they must also pledge to be completely transparent with their preservation methods and choices. In the introduction, I framed this thesis as an attempt to demystify the archive. In this section, I call to the digital archivist to help with this goal of transparency, and I am not alone in these efforts. Documenting the Now, an effort which describes itself as "a tool and a community developed around supporting the ethical collection, use, and preservation of social media content," focusing on Twitter data, has been working with archivists, librarians, and researchers to develop a way to document the every choice archivists make when they decide how and what to collect, currently towards social media

¹⁶⁰ Peter Chan, "What Does it Take to Be a Well-rounded Digital Archivist?," *The Signal* (blog), Oct. 7, 2014, <https://blogs.loc.gov/thesignal/2014/10/what-does-it-take-to-be-a-well-rounded-digital-archivist/>.

but hopefully more pervasively.¹⁶¹ “Collectors can log both their decisions and any technical limits or parameters imposed on the collecting effort by the social media platforms.”¹⁶² While this effort is not standardized completely yet, this information is essential to providing clear and accurate metadata for future use. Transparency can help mitigate future questioning of appraisal policy; however, how can we be sure that we are responsibly collecting to the best of our ability? The next section will offer some suggestions to creating thoughtful, intentional collecting scopes and practices.

3.5 Suggestions for Creating Responsible Digital Appraisal Policy

As described in previous discussions of postmodernism and the archive, it is impossible to know exactly what information will reveal the most in future studies of our present moment. While it would be easy to view the lack of implementable theoretical standards regarding digital collecting as paralyzing, there is also an amount of comfort that comes from the lack of consensus. Just like traditional repositories that hold analog records, no one institution is responsible for collecting our digital heritage in its entirety. Each institution and repository will be responsible for information they deem either important to their collection development policy, primarily those related to their institution's digital activity (public or private).

Of all factors, collection development is most closely tied to an organization's own goals. Collection builders should be able to refer to the mission statement of their organization and articulate how a proposed collection furthers or supports that mission. The institution should be able to identify the target audience for the collection but also think about unexpected users. If the institution collects print, artifacts, or other non-digital materials, the digital collection should fit

¹⁶¹ Graham, “Guest Editorial,” 104.

¹⁶² *Ibid.*

in with the organization's overall collection policy. Under those assumptions, users will still be able to go to one institution and see large amounts of useful information pertaining to a singular subject and research area.

There are a few cases where a selection policy may not be required: digitization on demand, when an organization is creating digital content based on end-user requests, and mass digitization programs, which are often indiscriminate.¹⁶³ Even these efforts require planning and should follow principles for building good collections as appropriate. Disciplinary or institutional repositories that encourage users to deposit their own intellectual property present an interesting case. These still benefit from a published collection policy, but it may have to be fairly flexible in acknowledgement that the users may be the best judges of relevance.¹⁶⁴

With usage as a guiding principle, online repositories, especially those with early digital presence, need to install programs that track their users' data. User testing and tracking is essential in determining how users navigate collections and even what types of material are demanded. Now more than ever, it is necessary to see how researchers will conduct research using these new types of online, born digital sources; programs like Eloquent Archives, are optimal platforms in controlling digital collections while tracking researcher usage.

While current user usage is unarguably helpful, it still begs the question whether or not the collections contemporary researchers are looking at will be helpful for future researchers. Library schools and information science programs do not adequately prepare their students to make these types of accession policies, nor should it be relegated to a single discipline when the stakes are so high. Collecting policy needs to be discussed outside of the walls of the archive with professions versed in the consequences of thoughtless collecting policy. Unfortunately, as

¹⁶³ Niso Framework Working Group, "A Framework," 5.

¹⁶⁴ *Ibid.*, 5.

previously described, having conversations in the theoretical and the tangible often seem to result in entirely incompatible resolutions. While it may take extra learning on both sides, constructing a panel of interdisciplinary experts (from History for their expertise in historiography, Anthropology for their expertise in culture and human development, Sociology for their expertise in contemporary moments, Ethnic Studies experts for their knowledge of minority representation, Gender and Sexuality Studies experts for their knowledge of underrepresented voices) is essential in the conversation of collection policy creation both in analog and born digital preservation.

Archival institutions affiliated with academia have no reason not to use this model of interdisciplinary consultation. While it is not realistic to expect this type of consultation during every acquisition and accessioning decision, there should, without fail, be interdisciplinary discussions regarding an archival collection policy as not all digital material, with our current technological and spatial constraints, is preservable in perpetuity. Again, while academic institutions have no reason not to utilize the experts at their disposal, other public repositories might have difficulty acquiring such help. Local history centers, often run by volunteers but responsible for preserving important local heritage, often have no access to the types of consultations I am recommending. This is my call to academics and professionals to the field; while often complaining about record scarcity, the opportunity to preserve records and materials for future academics is available; and while the archive may be resistant to change and outsider influence, it is essential moving forward in digital preservation—as there is more opportunity for archivist discretion—to insert the expertise of the other humanities into the discussion to not only avoid record scarcity but also provide a clearer, truer representation of our contemporary moment.

While many of the conversations regarding the preservation of digital materials are not far removed from the conversations between Schellenberg and Jenkinson, and while experts have regarded this moment as a “forgotten generation, or even forgotten century,” the future of preservation is still exciting and full of possibility.¹⁶⁵ While we have the opportunities to fall into the same theoretical mistakes but on a different medium, it is also the perfect time to reinvent the wheel of accessioning policy and collection scopes that will provide clarity and context to our current moment, even if we do not see what that context is yet. It will not be an easy transition; there will be many in both fields of archival science and traditional humanities that will be resistant to the change suggested, but this is a moment to restore voices to minorities, to maintain accountability, to preserve cultural memory for a generation that, as experts have mentioned, is at risk of being lost. The next section will offer insight into what digital-born sourcing means for history as a discipline, and some suggestions for the pedagogy of history to successfully prepare students to participate in ‘Digital History.’

¹⁶⁵ Ian Sample, “Google boss warns of ‘forgotten century’ with email and photos at risk,” *The Guardian*, Feb. 13, 2015, accessed Sept..22, 2019, <https://www.theguardian.com/technology/2015/feb/13/google-boss-warns-forgotten-century-email-photos-vint-cerf>

CHAPTER 4

THE DIGITAL REVOLUTION'S IMPACT ON THE DISCIPLINE OF HISTORY AND RECOMMENDATIONS FOR THE FUTURE PEDAGOGY OF HISTORY

Because responsibility for preserving digital material is still largely undefined, historians have seemingly been absent from this conversation. As stated previously, the relationship between the historian and the archive is mutually beneficial and symbiotic, however there has been little published research identifying historian's views on digital preservation.¹⁶⁶ Indeed, the literature indicates the relationship is a long-standing and somewhat complex one. Terry Cook observes that the two professions have experienced a distancing in recent years. "The archive has become a foreign country for historians." He notes an aura of "silence" and "invisibility" surrounding the archivist and that, in order to maintain an objective stance, historians in a sense are "blind" towards the archivist's powerful "co-creator" role, and argues that there is a need to "break the harmful silence between historians and archivists."¹⁶⁷

From a UK perspective, the literature suggests there has been little collaboration between the two professions, and this was confirmed in this study by comments from the UK National Archives, "suggesting that historians had been rather passive, and reticent in engaging in planning for the future. Historians seem focused on digitizing existing records, that is, the records of the past (for the present) rather than the records of the present, for the future."¹⁶⁸ This is not misaligned with their craft; the historian seeks to reflect on and interpret the past.

¹⁶⁶ L. Roland and D. Bawden, "The Future of History: Investigating the Preservation of Information in the Digital Age," *Library & Information History* Vol. 28, No. 3 (2012): 12.

¹⁶⁷Terry Cook, "The Archive is a Foreign Country: Historians, Archivists, and the Changing Archival Landscape," *The American Archivist* Vol. 74, No. 2 (Fall/Winter 2011): 622.

¹⁶⁸ Roland and Bawden, "The Future," 12.

However, considering the ephemerality and vulnerability of born digital material, historians will need to be conscious of digital appraisal and preservation for the sake of the future.¹⁶⁹

The Digital Revolution has entered a second phase in which digital objects (their environments, tools, and technologies) are considered in their own terms rather than digital representations of an analog record from a non-digital world. Now, we are confronted with entirely different mediums in which to glean information. At first, the Digital Revolution reproduced versions of print forms, and the actual process of digitizing and making accessible attributed a different value into the once analog record. The second phase we find ourselves in is not as comfortable because it is completely new; no longer are the digital materials archivists preserve mere surrogates of an analog past. They have lived an entire life solely digital and require a reimagining of sorts not only in their preservation but also their interpretation. The next two sections will offer some suggestions to the disciplines of both archival science and history; and for the sake of simplicity, we will think about the digital world simplified into two stages: digital objects resembling its analog ancestors to digital objects produced as authentically digital and removed from the first phase's characteristics of simulation.

Also, this chapter contends with the reality of the pedagogy of history in a digital realm and offers necessary changes to prepare future historians who will inevitably encounter records produced in the second phase of our digital life. In more tangible terms, what are the differences in interpreting data instead of documents? What sort of knowledge will historians need moving forward where analog records are becoming scarce and born-digital objects are overwhelmingly plentiful (if we continue our preservation efforts)? Is a more technical education necessary to interact with born digital sources and understand their implications? What does the pedagogy of

¹⁶⁹ Roland and Bawden, "The Future of History," 13.

history need to learn and relearn itself to prepare students interested in post-1980s studies, and how will history in academia change to responsibly meet the demands?

Magnified because of postmodernism, discussed in the previous chapters, it is difficult to know exactly what skills will be necessary as it is difficult to discern what information will mean to the future historians analyzing it. However, this difficulty should not deter early imaginings, experiments, and action plans, for if we do not, the next wave of historians interested in studying the world forever transformed by the digital revolution will be unprepared with their current education.

4.1 Digital Revolution: A brief history of simulated digital sources and its implications on the research of history

In her book, *Dust: The Archive and Cultural History*, Carolyn Steedman reminds us that much of what is written as history is based on research in records held by archival institutions. Steedman recommends that historians and academics maintain an element of weariness when depending on the archive. Scholars recognize the archive is a creation that masks as much as it reveals, and that regardless of where the author did research their voice shapes the final product.¹⁷⁰ Steedman suggests that the archive is interesting and relevant today insofar as it shows us the ways people use the past to define themselves and others. She views the archive simply as a name for the places “in which the past (which does not now exist, but which once did actually happen; which cannot be retrieved, but which may be represented) has deposited some traces and fragments, usually in written form.”¹⁷¹ This is similar to Assman’s understanding and

¹⁷⁰ *Ibid.*, 132.

¹⁷¹ *Ibid.*, 2.

application of mnemohistory. If this is a common interpretation among scholars, does it transition well into the digital space?

Before we move into web-born sourcing and its implications on the history discipline, we need to briefly discuss digitization projects as they were the archivist's first digital efforts. When discussing concepts of digital surrogacy and object simulation, for the purposes of this paper, we will be discussing the digitization of analog records and the use-value of online archival repositories. Digitization is a radical transformation of material form and so takes place in discourse of loss and gain. Many historical documents are available digitally, separate from their physical home. As many institutions undertake these types of digitization projects, aiding with accessibility of their collections, they also more often than not separate the newly digitized record from its historical context. The majority of archival digitization projects are selective, products of the archivist's interest, or at the request of a researcher and consequently added to the public repository. Archivists sift through a body of records, select what they perceive as key, seminal, or interesting documents, scan them and present them on the internet as publicly accessible. But, the materials scanned and presented have not tended to be the full body of the collection's records. And with researchers' sole reliance on digitized records linearly increasing, the integrity of the scholarship produced now becomes curated by the archivist's interests and discretion.

As we see the exponential increase in digitized material, appraisal still is an integral part to the discussion. Digitization projects rarely take an entire collection and provide online access, so the archivist must choose the "valuable" material to provide online while maintaining accurate metadata. The problem, however, is that the digitizer often makes these decisions without giving much thought to the ramifications of thoughtless selection. This means that these conversations

regarding appraising worthy collections for digitizing require similar conversations that archivists have had in the past regarding analog appraisal theory. But it is hard to know exactly how Jenkinson and Schellenberg would react to these digitization choices or how to apply past appraisal theory to these new conversations.

If I was to speculate, Jenkinson would find the only responsible way to digitize a collection would be to digitize it in its entirety while creating perfectly accurate metadata that would somehow preserve the physical records original order while moving it into a digital repository. However, he would be troubled with the thought of the archivist deciding which collections warrant this type of digitization project. Schellenberg would, on the other hand, find appraisal absolutely necessary when determining what should be digitized and what should remain in the box. But, like Schellenberg's original theories suggest, deciding exactly what is and is not worthy of digitizing is a difficult discussion. Because digitization has the potential to curate accessible sourcing thus directly curating the histories written, these decisions, and their consequences, must be taken seriously and should require the same thoughtfulness as born-digital preservation projects. The archivist, through digitization processes, has a much more significant role in the interpretation of primary sources than perhaps credited with.

But while the archival professionals have room to rectify the decontextualization inherent to digitization projects, history educators also have responsibility in this reframing of digitized sources and the consequences of their transformation. The question of introducing archival theory to a broader audience should not be a question of if but how. While we should not expect a history professor to concern all students with the nuanced discussions of archival science, we do expect these educators to teach context and authenticity of records. As revealed in this

section, this discussion fundamentally changes when the medium in which researchers interact with sources also fundamentally changes.

Undoubtedly, the use of technology mediates the relationship between historians and their sources. As Toni Weller wrote, “the physical sensation of touching the documents, searching the catalogues, opening a folder in an archive, or gazing upon a piece of artwork is lost when staring at the computer screen.”¹⁷² Although its content should be faithful to the original (if everyone has done their job properly), it is usually cleaned up, typed up, and laid out. The digital forms of primary sources though are only as useful and as good as the amount of work and effort that goes into preparing them, publishing them, and providing accurate and thorough metadata. The researcher, because they have not actually handled the original, is somewhat at the mercy of those providing the digital version. The work of verification and corroboration now includes another agent of the authentication process: the original creator, the researcher, and the digitizer.

4.2 A Historian’s “Tool Belt” for Web-born Sources

Assuming that we are able to preserve the born-digital heritage, what sort of tools and knowledge will historians need to interpret the material? The role of the archivist has historically been established as the keeper of records and the historian the interpreter of the record, and while I think the boundaries between these disciplines are more malleable than prior definitions would suggest, the historian must have ways to interact with a new source base that requires more technical skills to make sense of digital mediums.

Recent developments in digital humanities have posed new challenges as well as possibilities for doing history differently. Much debate has been focused on whether—given the

¹⁷² Toni Weller, *History in the Digital Age* (London: Routledge Publishing, 2013): 135.

quantity of and the ease of access to the archives—methods of quantitative social science research could be meaningfully employed by historians. Quantitative analysis of text-mining, for example, has been used to find more precisely patterns of language change. For historians, this may seem a trivial change, but consider this: the social media sphere has fundamentally changed definitions of words and wordplay quantitatively analyzable. The word ‘like’ no longer solely connotes a psychological affinity but a physical action. These technologies, and therefore findings, could become clues for social and cultural historians of these more recent decades.

For the purpose of this chapter, we will consider data broadly as computer-processable information. This includes measurements of nearly every kind, such as census records, as well as all types of textual publications that have been rendered as plain text. Given the myriad forms that data can take, making sense of data and using them as evidence has become a rather different skill for historians than prior primary source analysis. For that reason, the creation of, interaction with, and interpretation of data must become more integral to historical writing; the teaching of these skills must be mandatory.

But how should educators pinpoint useful skills when the digital historians refuse to disclose their methodologies in the pioneering stages of digital research? Fred Gibbs and Trevor Owens argue that more important than the content and arguments of these new digital histories is:

making [the author’s] methodology accessible to a broader humanities audience. To some extent, legitimizing digital work requires an appeal to the traditional values of the non-digital humanities. But how can digital historians expect others to take their new methodologies seriously when new ways of working with data (even when not with sophisticated mathematics) remain too much like an “impenetrable and mysterious black box?”¹⁷³

¹⁷³ Jack Dougherty and Kristen Nawrotzki, *Writing History in the Digital Age: A born-digital, open-review volume* (Ann Arbor: University of Michigan Press, 2013), 161.

The processes for working with the vast amounts of easily accessible and diverse sets of data suggest a need for historians to formulate, articulate, and propagate ideas about how data should be approached for historical research. It will be a process of trial and error; however, it will also have to be as transparent as possible.

Not only would this aid in demystifying ways born-digital sourcing can be used, it also would help quell the skepticism from older generations of academic and professional historians. As Jack Dougherty and Kristen Nawrotzki find, there is no question that historians can be, and are trained to be, skeptical of source manipulation. This is perhaps the preeminent reason why methodology needs to be clearly explained in the early stages of digital history. With new digital tools, there is no consensus regarding understanding and identifying best methods for the currently messy circumstances of historical data. But Dougherty and Nawrotzki realize the reason why many historians remain skeptical about data are not all that different from the reasons they can be skeptical of text. The last few years have complicated such notions even more, as many traditional texts have come to be seen as data that can be quickly searched, manipulated, viewed from a variety of perspectives, and combined with other data to create entirely new research.¹⁷⁴

General knowledge of programming languages is essential moving forward. A benefit of learning to program is having the ability to create your own programs, although add-ons for existing programs is usually more than enough. This can allow the historian to work with, what has been dubbed, 'big data'. Big data refers to the massive amounts of data that would be near impossible for a historian to process manually.¹⁷⁵ Therefore programs are created that do

¹⁷⁴Dougherty and Nawrotzki, *Writing History*, 164.

¹⁷⁵*Ibid.*, 181-184.

whatever you want to do with the data automatically, cutting the time down from an entire career, to a few hours.

There are, however, many downfalls to programming's use in history and reasons why we only see digital historians taking up the mantle of programmer. The biggest reason why we do not see programming used more widely is that it is difficult to learn, and can be very time consuming. Also of concern is which language is worth spending the time and effort to learn, there are a lot of programming languages such as: C, Java, PHP, Python, C++, etc. Although many of these languages overlap, and certain languages are better at accomplishing different tasks, there are limitations ascribed to each language. Connected to this is the fact that learning a programming language is basically the same as learning a new language, and one must decide whether learning coding is worth more than learning a traditional foreign language.¹⁷⁶

Traditionally, a foreign language requirement helps fulfill a need to better interpret and analyze primary sources; could we not make the same case regarding programming languages and web-born sources? Although this may seem a weak argument, putting into perspective the time and effort needed to become competent with a single programming language is important, especially when you have many other restraints on your time such as research, teaching, marking work, etc.

But its importance is glaringly obvious. For example, take the Wayback Machine previously mentioned in chapter three. While the preservation efforts are commendable and shockingly progressive, they are not infallible. The internet and websites are fragile in its current form, but then attempting to preserve the websites in their original environment and authentic form only exacerbates the fragility of the integrity and usability of the webpage. More often than not, information is lost in translation; you will find some broken pages, missing graphics, and

¹⁷⁶ *Ibid.*, 181.

some sites that are not archived at all. However with a basic knowledge of web development languages (HTML, Javascript, CSS), a historian would be able to piece together the backend of the webpage and glean useful information lost in preservation's translation.

Roy Rosenzweig noted the need for this digital transition early on; in January 2004, he organized an event titled "Entering the Second Stage of Online History Scholarship" where he noted the necessary shift from mere experiments into digital history and scholarship to digital scholarships permanent addition to academia.¹⁷⁷ He would be disappointed to know that 16 years later, these projects are often still only in imaginative phases. This next step will require interdisciplinary collaboration, the likes of which most historians have yet to embrace.

4.3 Digital History Done Right

While it is necessary to say most digital history projects, but not all, are geared toward student learning and interaction, academia also has so much to benefit from these types of projects. Digital histories, and the trend of providing open source access, provides an equity to the knowledge production, just like digitizing archival material. Though dated, Adam Hochschild's "Do You Need a License to Practice History?" seems to be more timely now than ever before; Mr. Everyman, described in chapter one, is creating passion projects online and reaching large sums of people because his work is interesting, engaging, and approachable. Much like conversations that pit academic historians and public historians against one another, the division between scholarly historians working toward traditional mediums of success (i.e. the publication of a book or other scholarly works) and the digital historian, who perhaps is creating

¹⁷⁷ Eileen Gardiner and Roy Rosenzweig, "Entering the Second State of Online History Scholarships" (conference information, AHA Annual Meeting in Washington DC, 2004): 3, accessed Sept. 27, 2019, https://www.academia.edu/6396506/Entering_the_Second_Stage_of_Online_History_Scholarship.

simulations from primary source records or GIS projects, can no longer be viewed as doing historical work to varying types of academic rigorosity.

There are two main parts encompassed by the umbrella term of digital history; one, the final product created is digital but created by using analog records, and two, the final product resembles more so traditional academic scholarship but depends on digital-born sources and big data to construct the narrative. Speaking to the first point, a group of interdisciplinary academics, using archival material and the first-hand account of Chinese diplomat Zhou Daguan, created a 3D simulation of the historic Angkor Wat using commercial video gaming technology but situated within a rigorous historical context.¹⁷⁸ Though created for younger students, the simulation was created to get students asking “questions about Angkor’s place in larger networks of trade and diplomacy, its experience with climate variability, and the structure of power and kingship that underpinned the city.”¹⁷⁹ Framed as an interactive primary source, this simulation could and should be seen as legitimizing to the traditional field of historians questioning its academic integrity.

Another digital output is the Correlates of War (COW) Project. COW is “an attempt by historians and political scientists to take a quantitative look at the history of war and conflict. The project hosts a stack of spreadsheet-readable data on wars through history.”¹⁸⁰ The available datasets, ranging from land registers, world religion data, colonial dependency statistics, war datas, do have human interpretation but are as objective as possible and one-of-a-kind quantitative resources for scholars and students alike.¹⁸¹ The Bomb Sight Project is based on data

¹⁷⁸ Tom Chandler, Adam Clulow, Bernard Keo, Mike Yeates and Martin Polkinghorne, “Virtual Angkor”, 2018, virtualangkor.com.

¹⁷⁹ *Ibid.*

¹⁸⁰ “The Correlates of War Project,” The Correlates of War, University of California, Davis, 2020, accessed Jan. 24, 2020, <https://correlatesofwar.org/>.

¹⁸¹ *Ibid.*

collected from the Bomb Census Survey-1940 to 1945, which is housed in the National Archive. While those details and resources were previously behind brick and mortar in archival boxes, this GIS project created maps with red dots that symbolized one bomb. And through user use, those who either lived or had families living through the bombings helped build out the database with stories and photographs.¹⁸²

Finding historians utilizing born-digital sourcing is harder: as Helen McCarthy writes, many historians have not even entertained the idea of what “doing history” looks like with only born-digital sources because the bulk of relevant material is still analog, still paper-based and therefore still familiar. The changing way people interact with the digital space, and therefore the context in which records are produced, means something, however the lack of use at the hands of historians only furthers the ambiguity to exactly what we need to know and what needs to be preserved about digital records. McCarthy, in her discussions about Twitter, writes:

To analyze a tweet meaningfully, we must understand its context in depth: who tweeted it and when did it appear? What webpages did it link to? Was it tweeted from a mobile device, a laptop or a desktop, and does that make any difference to how we interpret its meaning? Who was the tweet aimed at? Who read it? Who replied, retweeted or favorited it? Did it include a hashtag, and if so, do we understand its significance? Can we look at all other tweets with the same hashtag? Can we capture retrospectively the dynamic interactivity inherent in a medium such as Twitter?¹⁸³

For now, with added hardship, archivists are preserving digital material in its most authentic, original form even if not all components of its original form actually matter.

¹⁸² “Bomb Sight: Mapping the WW2 Bomb Census,” The Bomb Sight Project, University of Portsmouth and the National Archives, 2011-2013, accessed Jan. 24, 2020, <http://bombsight.org/>.

¹⁸³ Helen McCarthy, “Political History in the Digital Age: The challenges of archiving and analyzing born digital sources,” *LSE* (blog), March 31, 2016, <https://blogs.lse.ac.uk/impactofsocialsciences/2016/03/31/political-history-in-the-digital-age-born-digital-sources/>.

4.4 The Future of Digital History

Historians like the idea of the traditional archive. The fetishization of the archive—the old boxes, the musty smell, the yellowing paper, the traveling, the exclusivity of the research process—is completely removed from the digital research experience. Digital Humanities, and Digital History, is often viewed as a niche pursuit, but the future is inevitably digital; even if success remains synonymous with publications in traditional formats (monographs and peer-reviewed articles), we still have to face, as a discipline, the inevitability of working with digital sources.

The future digital environment will change the way we ‘do’ history. It surely changes in regard to the medium of our primary sources. Historians will contend with emails, webpages, podcasts, data, videos, digital messaging, and more, and these types of sources necessitate a rethinking into what skills are necessary for this new “digital historian” to learn. It is hard to say exactly what academic history will look like in the near future, when historians are not only relying on digital sourcing but also producing digital outputs instead of the more orthodox types of scholarship, however in this transitional phase, now is the time to start exposing students to new types of technologies and skill sets necessary to “doing digital history.”

CHAPTER 5

CONCLUSION

The Digital Revolution has changed everything. We have access to so much; so many resources, photographs, videos, movies, art, interviews, content, jokes, special interest groups, languages, communities, digital spaces where we find like-minded people, places we cannot relate to. The interconnectivity of the globe facilitated by digital means forever changed the scope of information transportation, but it also changed the very way we create our material. As rosy the space I just described is, there are downfalls; simply, there is too much. DNA storage methods are on the verge of being useful in this negotiation of saving our digital heritage, but is everything worth saving? And if so, how will we expect scholars of the future to sift through the millions of records created by the minute.

There will have to be an intentional choice when an archivist discerns exactly what is to be kept for posterity and what is to be lost to obsolescence, and inevitably forgotten. This is not a new phenomenon. As was described in the Jenkinson-Schellenberg debate, the archivist has always faced spatial constraints, and therefore has been forced to make hard choices when necessary. But optimistically, archivists are now more than ever aware of their role in memory construction and are choosing to make conscious, intentional choices regarding what remains. But is it enough?

Historians are probably unnerved by the phrase “conscious, intentional choices.” Does that not go against our objective of objectivity and factual truth? Well, postmodernism has offered both a paralyzing realization but perhaps odd comfort; the interpretation of history does not only tell us something about the past it writes, but it also tells us about the contemporary moment in which it was written. Archival appraisal theory is not so different from

historiographical studies. With movements within the archival community to open up internal records and provide more transparency, Jan Assman's mnemohistory serves a helpful theoretical framework. We, as historians, can glean to who the archive served at a given moment and what that has done to our understanding of a given history.

At the very least, I hope this thesis serves one purpose, and that is opening up discussions about the future of our digital heritage. There is no one way to approach this subject, and while there are many great minds working on solutions, this cannot be relegated to just an archivist problem. It has to be interdisciplinary. Historians particularly know the consequences of choosing wrong, of making mistakes. Since the 1980s, historians have revisited commonly accepted narratives to study the voices of the disenfranchised, the voices that were lost in a deaccessioning sweep, or were never imbued with historical value at all. What happens if some of us do not divert our attention from the study of the past to the very bleak realities of the future; whose voices are we willing to lose?

There will never be a static answer, and that is not a pessimistic notion. The policies within the archive need to constantly be negotiated and renegotiated as value has and will always too. Collection policies should be updated at least every five years; deaccessioning should not be trivialized, and appraisal should be more thoughtful. The public archive, whether affiliated with governments or publicly funded institutions, should never be seen as having the sole duty to serve those funding it. It is, as Pierre Nora would call it, a *lieux de memoire*, or a place of memory.¹⁸⁴

In a perfect scenario, say the archive responsibly preserved the "right" digital material. Will the future historians be able to interact and interpret this new medium? How long is too

¹⁸⁴ Pierre Nora, "Between Memory and History: Les Lieux de Memoire," *Representations*, no. 26 (Spring 1989): 7.

long to wait before we start training history students for their inevitable digital future? There are wonderful, innovative pioneering digital history projects that both encompass rigorous research methods as well as marketable technical skills. At a graduate level at the very least, we must separate the synonymy of success with published written material, such as a monograph or scholarly article. Digital Humanities can no longer be thought of as niche, pilot projects. There must be some effort to prepare students for the realities of the job market after schooling, and I truly believe, even in academia, the skills marketable are technological and digital.

This thesis serves two purposes; one, it chronicles the monumental intellectual changes to American archival sciences and institutions, and two, it shows how these early conversations are both not far removed from digital preservation efforts and at times incompatible with the unique non-analogous problems created by web-born sources. Jenkinson and Schellenberg established critical archival theory that still can and should be taken into consideration when moving towards born-digital preservation. Once again, some born-digital sourcing is directly analogous to its analog counterparts, and therefore the Jenkinson-Schellenberg appraisal debate is essential to determining use-value both contemporary and futurality; however, archivists need to determine new appraisal policy when confronting digital mediums that require a break from traditional modes of selection.

While this should act as a reality check to scholars outside the archival profession, as digital preservation is still often considered pioneering though the Digital Revolution happened decades ago, I hope it also serves a different purpose; while digital preservation is daunting, it is also an exciting new moment to explore what it means to be interdisciplinary, to employ social justice tactics, to include essential voices to the narrative that have historically been silenced in the appraisal process. The archivist has an entirely different level of activism than ever before;

while repositories historically received material through donations with the occasional active purchase, the autonomy of web-born sourcing necessitates a different level of active selection. I refer to this as exciting as it is the time to attempt to create what Ham referred to as a mirror of society in the archive. But, as asserted previously, that cannot happen if appraisal decisions remain in the impenetrable black box that is the archive.

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