

2017 International News Media Conference
April 27-28, 2017
Reykjavík, Iceland

**The Historical Newspaper Crisis: Discoverability, Access,
Preservation, and the Future of the News Record**

Jenny L. Presnell
Reference and Collection Services, Miami University, Oxford, Ohio, USA.
presnejl@muohio.edu

Sara E. Morris, PhD
Content Development, University of Kansas, Lawrence, Kansas, USA.
semorris@ku.edu



Copyright © 2017 by Jenny L. Presnell and Sara E. Morris. This work is made available under the terms of the Creative Commons Attribution 4.0 International License: <http://creativecommons.org/licenses/by/4.0>

Abstract:

This paper discusses, investigates, and theorizes on three themes related to the use of newspapers as primary sources: discoverability, access, and preservation. Evidence includes: the evolution of discovery from union lists and indexes to keyword searching; access overtime of various formats including New York Times microformat and digital holdings in academic Association of Research Libraries (ARL); preservation challenges of multiple formats in the past and future. The authors, academic librarians in the United States, offer insight about how these three themes should be considered in collection development, reference and instruction, and acquisition activities in academic libraries. Finally, the paper will speculate on future challenges librarians and scholars may face discovering and using news sources in light of the shrinking number of newspapers, the lack of a version of record for those existing papers, and the growth of alternative and fleeting news sources.

Keywords: Newspapers, Preservation, Access, Discovery, Digitization.

Introduction

The historical news record has become far more complex in the twenty-first century, despite the general assumption that digitization and born-digital sources would revolutionize research. Historical newspapers, essential sources for researchers and students in multiple disciplines, may in fact be more problematic to use now that they are available in multiple formats.¹ Print, microfilm,² scanned full-page images, and born electronic each have their own unique aspects of discoverability, access, and preservation. Academic librarians, unlike their special collections, archivist, and preservation colleagues, have failed to explore, contemplate, or solve problems associated with the longevity of primary sources.

Newspapers have caused librarians multiple dilemmas. The increased demand for papers in the late nineteenth and early twentieth century and publisher's quests for high profits resulted in low quality paper. It became obvious quickly that the paper lacked durability. In 1927, the *New York Times* (NYT) responded to preservation concerns by issuing special library editions.³ Other newspapers also adopted printing special runs on better quality paper and using a binding intended for high use. For half of the twentieth century, microfilm became the standard method for preserving and accessing newspapers.⁴ Librarians' enthusiasm for microfilm as the chosen method of preservation in the United States became a catalyst for Nicholas Baker's controversial monograph *The Double Fold*.⁵ Ironically, Baker's 2001 rebuke of librarians for their adoption of microfilm debuted just as newspapers entered a new medium.

Although databases like DIALOG and Lexis/Nexis contained ASCII full text of newspapers, Bell & Howell's 2001 announcement of a full-page image of the complete runs of newspapers with keyword searching for all printed content, changed researcher's expectations.⁶ Since the launch of ProQuest's *Historical New York Times* (HNYT), other vendors have launched digital newspaper products. Some organizations created freely accessible historic newspapers. Today's historical newspaper crisis is one that extends beyond the realms of those charged with preservation or collecting rare and special materials. Librarians, who curate primary and secondary sources, help scholars track down "common" materials, and make general collections decisions, need to understand the current state of researching the past's news. These librarians have accepted and embraced microfilm and digital collections, recognizing that both have imperfections and benefits.⁷ But aspects of these information revolutions appear undiscussed in the library literature. Further, this paper will suggest considerations for librarians and generate discussion about future discovery, access, and preservation of news.

¹ Mary Feeney, "Understanding News Researchers Through a Content Analysis of Dissertation and Theses," *Qualitative and Quantitative Methods in Libraries (QQML)* 1, (2014): 263-264; Margaret Stieg Dalton and Laurie Charnigo, "Historians and Their Information Sources," *College & Research Libraries* 65, no. 5 (September 2004): 405.

² Microfilm will be used through this paper to include all varieties of microformats found in libraries.

³ B.W. Scribner, *Preservation of Newspaper Records*, National Bureau of National Standards, Miscellaneous Publications, vol. 145, (Washington: GPO, 1934), 1, accessed March 13, 2017, <https://www.govinfo.gov/content/pkg/GOVPUB-C13-b21ddfafbc804fa5aecf884a38574630/pdf/GOVPUB-C13-b21ddfafbc804fa5aecf884a38574630.pdf>.

⁴ National responses to newspaper preservation and reliance on microfilm differed in every nation. For a summary of national activities see Ian P. Gibb, ed. *Newspaper Preservation and Access: Proceeding of the Symposium Held in London, August 12-15, 1987, vol. II, Edited for the Section on Serial Publications and the Working Group on Newspapers* (München:K.G. Saur, 1988).

⁵ Nicholas Baker, *Double Fold: Libraries and the Assault on Paper* (New York: Random House, 2001). For a monograph length retort from an informational professional see: Richard J. Cox, *Vandals in the Stacks?: A Response to Nicholson Baker's Assault on Libraries* (Westport, Connecticut: Greenwood Press, 2002).

⁶ Paula J. Hane, "Bell & Howell Announce ProQuest Historical Newspapers Project," *Information Today* 18, no. 2 (February 2001): 1.

⁷ This paper reflects the discovery, access, and preservation practices within the United States.

Discovery

Discovery of news articles has always been difficult, whether researchers searched for the existence of a title by using a union list, reading through complete papers on microfilm, or using an index. Before microfilm, libraries and publishers stored bound copies of the final edition, making it difficult to identify non-locally held news sources. Just proving the existence of a title and its location could be arduous. Initially union lists and bibliographies helped researchers to identify titles and library holdings. Later, indexes and keyword searching in online databases provided somewhat easier access, yet not without challenges. The future of news discovery is complicated by the change in the contemporary climate of journalism, the demise of smaller newspapers, the rise of born digital resources, and sources of news not produced by professional journalists in conventional newspapers.

In the United States, early finding aids for newspapers included union lists and specialized subject bibliographies, listing dates of run, and sometimes locations with holdings. Because early papers had short lives, such lists proved when a title existed. Resources significantly improved after the founding of the United States Newspaper Program.⁸ As part of the program, each state created individual projects to identify titles and, if extant, holdings. Because of this project, *Worldcat* can be used as a modern day “union list” to identify titles and holdings of newspapers.

Indexes, beginning in the late nineteenth and early twentieth century, theoretically enabled researchers to pinpoint an article. The *New York Times Index*, began in 1851 as an in-house, handwritten leather bound volume.⁹ By 1863, the index became typewritten and divided by years. However, it was not until 1913 that it transformed into a modern, commercially available, organized, and systematic index of the final late edition with subject, author, geographic, and personal name entries. Samuel Palmer, a bookseller, and his family, for seventy-three years produced the *Times' (London) Index* beginning in 1868 and lasting until 1941. In 1905, the Times recognized the benefit of an index and began publishing *The Official Index To The Times* competing with Palmer's.¹⁰

Technological innovation in the late 1970s and 1980s began the shift from print to computer generated information. Print, computer generated indexes that were printed, CD ROMs and online databases all existed in this transition period. For about a decade, Bell and Howell's Newspaper Index Project produced print indexes to major newspapers.¹¹ Newsbank entered with a monthly index on microfiche which later evolved into an index with a set of CD ROMs containing article images. Information Access Corporation (IAC) produced *National Newspaper Index*, a monthly updated microfilm index of major newspapers. Dial-up, fee-based databases on DIALOG and Bibliographic Retrieval Services (BRS) offered more current newspapers, but at a cost per hour, and produced only transcribed articles. In 1980, NEXIS (LEXIS/NEXIS) provided transcribed article access to many local and major city newspapers.¹² The majority of newspapers, to this day, have no published indexes. Local libraries sometimes created in-house indexes, but these lacked the consistency and availability of commercial published works.

⁸ Founded in 1982 with funding from the National Endowment for the Humanities and oversight from the Library of Congress (LOC), the program aimed to “to locate, catalog, and preserve on microfilm newspapers published in the United States from the eighteenth century to the present.” See, National Endowment for the Humanities, “U.S. Newspaper Program,” accessed March 29, 2017, <https://www.neh.gov/us-newspaper-program>. Today the NEH supports the National Digital Newspaper Program (<https://www.neh.gov/divisions/preservation/national-digital-newspaper-program>).

⁹ Jo A. Cates, “The Record of Record: The New York Times Index,” in *Distinguished Classics of Reference Publishing*, ed. James Rettig (Phoenix, AZ: Oryx Press, 1992), 174-179.

¹⁰ Barbara Jones, “Indexing the Times,” *Indexer* 11, no. 4 (October 1979), 209-211.

¹¹ Cates, “The Record of Record,” 175.

¹² Edward Starkey, “Selective Overview of Newspaper Indexes--1986,” in *Newspapers in the Library: New Approaches to Management and Reference Work*, ed. Lois N. Upham (New York: Haworth Press, 1988), 133-141; LexisNexis, “The LexisNexis Timeline,” accessed March, 29, 2017, http://www.lexisnexis.com/anniversary/30th_timeline_fulltxt.pdf.

Neither indexing nor keyword searching guarantee successful discovery. Both the *Times (London)* and the *NYT*¹³ have histories of oddities and quirks in their indexing. For example, Palmer used the heading, “Rather Uncommon for Females,” in referencing two different cases of women being sent to prison for differing crimes.¹⁴ Alternately *The Times (London)* used the subject heading London Bridge – rebuilding plans while the *NYT* indexed the event under, Bridges – Thames River crossing.¹⁵ Thankfully, controlled vocabularies have improved over time.

Databases and keyword searching also have retrieval inaccuracies. Librarians know word choice matters as does differing searching algorithms and the quality of the original data. Studies comparing results of the *NYT* microfilm to several databases (*HNYT*; *Lexis/Nexis*; *Access World News*, and *Academic OneFile*) find that searching in these databases by headline, by-line, and location information, produced varying rates of accuracy. Of the four databases examined, the *HNYT* was the least accurate, but as the only product with images of articles and full pages, it is much easier to make up for retrieval errors.¹⁶

Even if indexing and keyword searching fail to locate articles, identifying them by reading the source is not fool proof either. Papers had several editions throughout the day and not all editions were preserved. Newspapers and libraries saved and indexed the last edition of the day, which contained more national than local news. With only one edition saved and microfilmed, pieces of history have been lost. For example, on September 17, 1970, the *Chicago Sun* published a story on a private briefing by President Richard M. Nixon in the first late-afternoon edition. After a complaint by Nixon administration officials, the paper revised the story. The original story does not appear either in the microfilm, nor the *Sun*'s clipping file.¹⁷ In another instance, the Eastview Press' digital copy of *Pravda* lacks an article that is present in the microfilm. Eastview used a print copy which had the article torn out.¹⁸ Finding a complete and accurate copy of a newspaper is not as easy as one might think.

Searching with keywords now is so ubiquitous that individuals simply assume that the results are entirely correct. But research has demonstrated this is far from the truth. The print papers or the microfilm scans used for digital projects frequently have imperfections and are not good quality. The Optical Character Recognition (OCR) software, which makes searching non born-digital materials possible, produces inaccuracies in some character recognition. Although the return rate of a search varies widely, a large scale quality control study of the British Library's 19th Century Newspapers Database found that overall character accuracy was a high 83.6%, but other items, such as words starting with a capital letter, was a low 64.1%.¹⁹ Consequently, no search is exhaustive and

¹³ Part of the concept of a commercially published index to the *NYT* was to sell the index to libraries and create usage and thus a national paper of record. Susan E. Tiffit, and Alex S. Jones, “How To Be a Newspaper of Record,” *Key Words* 10, no. 11 (Jan/Feb 2002), 23.

¹⁴ C.H.J. Kyte, “‘The Times’ Index,” *The Indexer* 5, no. 3 (1967), 125.

¹⁵ *Ibid*, 127.

¹⁶ Norman E. Youngblood, Barbara A. Bishop, and Debra L. Worthington, “Database Search Results Can Differ From Newspaper Microfilm,” *Newspaper Research Journal* 34, no. 1 (Winter 2013), 46-7. See also David A. Weaver and Bruce Bimber, “Finding News Stories: A Comparison of Searching Using Lexisnexis[sic] and Google News,” *Journalism and Mass Communication Quarterly* 8, no. 3 (September 2008), 515-530, that found very low agreement of results between Google News and Lexis/Nexis.

¹⁷ Jeffrey Kimball, *Nixon's Vietnam War*, Lawrence, KS: University of Kansas Press, 1998, 226-227, ff 55.

¹⁸ Jon. C. Giullian, “‘Seans chernoi magi na Taganke’: The Hunt for Master and Margarita in the *Pravda* Digital Archive,” *Slavic & Eastern European Information Resources* 14 (2013): 102-126

¹⁹ Simon Tanner, Trevor Muñoz, and Pich Hemy Ros, “Measuring Mass Text Digitization Quality and Usefulness.” *D-Lib Magazine* 15, no.7/8 (2009), accessed, April 7, 2017, <http://www.dlib.org/dlib/july09/munoz/07munoz.html>.

researchers must be educated on this lack of comprehensiveness. Still digitization and keyword searching allows the researcher to cover large quantities in less time and in greater detail.²⁰

If discovering news in the past appears difficult, the future will be even more complex and fractured. In the US, the fiscal realities of print newspapers has resulted in papers ceasing daily with many mid-sized cities and towns having only one newspaper and smaller towns with none. In many communities news is shared via entirely online publications, blogs, or Facebook groups, channels that librarians and archivists have not figured out how to preserve. It is impossible to know in twenty years how researchers will find this information. While small papers are unstable, national papers like the *NYT* have adapted their digital presence to new ways of presenting information, including interactive features and special apps. Some of the interactive features are not searchable. Further, the actual content of the paper changes throughout the day, making it impossible to save all versions of a day's paper. Some news sources are born digital and have no print equivalent, making discovery of past articles dependent on the website's search engine.

Even the concept of news is under challenge. No longer under the purview of professional journalists, news can be reported by anyone and posted as a tweet or through a blog. News is sorted by Snapchat, suggested and filtered by Facebook, and by various other news aggregators. It is unclear how selective these aggregators of news are and how these discovery methods affect retrieval. That is, assuming they are even being saved and archived. Even online comments to traditional news sources have a different kind of weight.

Access

Just because a researcher discovers a source does not mean they have access. In fact, access has become more complex as the historical newspaper formats have increased. The late twentieth and early twenty-first century librarian mantra of, "Access over Ownership" belies the difficulties of commercial historical newspapers. Due to the highly controlled nature of these products they are a return to the days of place bound collections. Databases, like large bound volumes, cannot be lent like microfilm. Users must either have library credentials or visit a library owning the needed title. While large digital collections can potentially enhance (or skew) discoverability, they do not actually improve access.

Traditionally scholars were limited by their institution's holdings or by those collections they could visit. With the advent of indexes, union catalogs, *Worldcat*, and interlibrary loan (ILL), secondary literature became easier to identify and obtain and decreased barriers.²¹ In 1953, historians recognized microfilm's affordability made it possible to complete research at small institutions and have a productive career.²² One scholar declared that twentieth century librarianship focused on "dissolving walls" and encouraged librarians to think in a cooperatively capacity about collections. Organizations, such as the Center for Research Libraries, acquired and purchased primary sources on microfilm or in print to be freely shared among its members. Today licence agreements for purchased content limit use to those users with local logon credentials.²³ When libraries allow non-affiliates to use online resources, researchers must visit the institution. Agreements between publishers and the purchasing

²⁰ Adrian Bingham, "The Digitization of Newspaper Archives: Opportunities and Challenges for Historians," *Twentieth Century British History* 21, no. 2 (2010), 225.

²¹ Joseph E. Straw, "When the Walls Came Tumbling Down: The Development of Cooperative Service and Resource Sharing in Libraries: 1876-2002," *The Reference Librarian* 83/84, (2003): 263-276.

²² W. Burlie Brown, "Microfilm and the Historian," *Mississippi Valley Historical Review* 40, no. 3 (December 1953), 513-514.

²³ The literature has failed to address how the digitization of historical sources will affect ILL and patron access. For a discussion about how e-books have decreased sharing among libraries see Katharine Lareese Hales, "Rebuilding Walls to Access and Service: The Impact of Electronic Resources on Resource Sharing," *Journal of Interlibrary Loan, Document Delivery* 22, (2012), 123-136.

libraries make it possible to send articles via ILL, only if the requestor has a citation. Browsing a run of issues is not an option.

In an essay in *The Chronicle of Higher Education*, Martha H. Patterson, a professor at a small liberal arts college, wrote of obstacles to doing primary source research. On a trip to do archival work, she learned that the newspapers she had just spent hours reading on microfilm were available digitally. However, she did not have access nor was she even aware they had been digitized. As a result, she stopped by libraries during family vacations, asked friends and librarians at resource-rich institutions to search for her, and accepted the fact that she would have to produce research without some sources. Patterson correctly summarized that the, “digital divide between the ivory-tower haves and have-nots will be a defining one for our generation of scholars,” for it will be far more difficult for intellectuals at limited resourced institutions “to enter the larger intellectual debate on equal footing.”²⁴

There are methods to access historical newspapers besides through an institution's purchased content. For example, copyrighted older issues of the *NYT* can be accessed via its website, but this requires an individual subscription. In 2008 ProQuest announced their digital newspaper content could be purchased through Google News Archive, whose short life ended this opportunity.²⁵ The products that are available for personal subscription, such as *newspapers.com* and *newspaperarchive.com* are geared towards genealogists. Some substantial free collections, such as *Chronicling America*, are useful for out-of-copyright smaller papers, but do not cover post-1922 material.²⁶

These changes in access are significant and have gone unmeasured. In an attempt to understand collection decisions concerning microfilm and digitized historical newspapers, we studied academic Association of Research Libraries' (ARL) *NYT* holdings. ARL's membership is made up of the 124 largest research libraries in North America. We selected ARL libraries because they are bellwether institutions and carry burden of being libraries of last resort. Since some ARL members are public and governmental libraries, we focused on academic libraries, as they would share similar collection development practices. ARL has 114 academic members, of which thirteen are Canadian. In late December of 2016 we collected data through their library catalogs, discovery services, web pages, and e-mail reference services concerning their holdings of the *NYT*.

At one point, all academic ARL members had purchased the *NYT* on microfilm.²⁷ In 2000, all but two of the academic ARL members still received the microfilm. By 2016 this number had dropped to forty-four. The cancellation of microfilm occurred steadily over this sixteen-year period. The first library to stop purchasing the film did so in 1998.²⁸ In the early 2000s, the number of libraries canceling remained constant. In 2008 this changed and by 2009, twenty libraries cancelled the film with an additional twelve the following year. Since 2010, the trend returned to an average of three canceling each year. [See Graph A] A total of sixty-six ARL academic libraries cancelled their microfilm within the last eighteen years.

²⁴ Martha H. Patterson, “Struggling to Keep Up,” *The Chronicle of Higher Education*, (November 5, 2007), accessed December 17, 2016, <http://www.chronicle.com/article/Struggling-to-Keep-Up/46552/>.

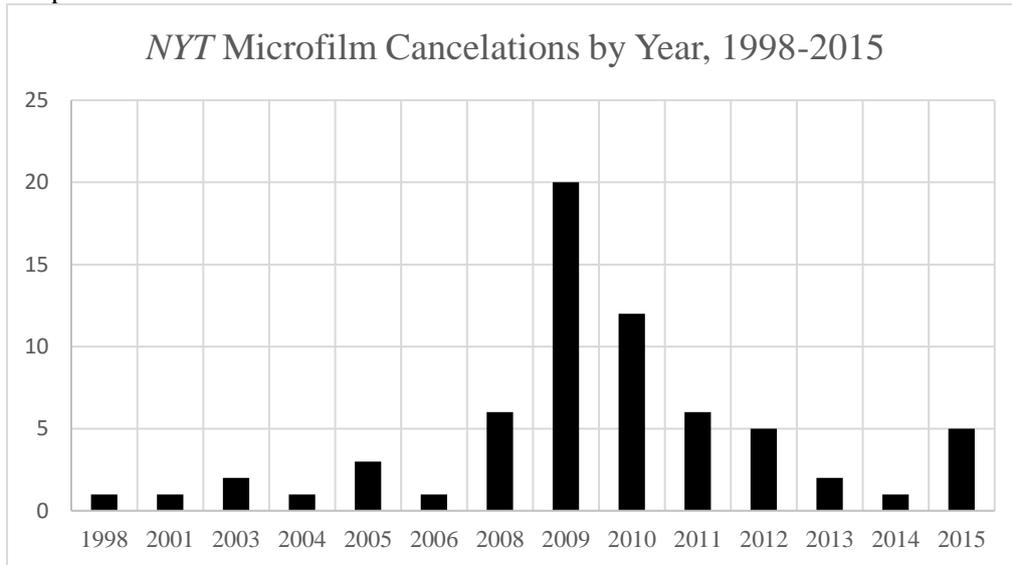
²⁵ ProQuest, “ProQuest and Google Partnership Will Unlock Newspaper Content,” (September 8, 2008), accessed March 26, 2017 <http://www.proquest.com/about/news/2008/ProQuest-and-Google-Partnership-Will-Unlock-Newspaper-Content.html>; Jared Keller, “Google Shuts Down Newspaper Archive Project,” *Atlantic* (May 20, 2011), accessed, March 26, 2017, <https://www.theatlantic.com/technology/archive/2011/05/google-shuts-down-newspaper-archive-project/239239/>.

²⁶ Family research has made historical newspapers marketable. But the interfaces, content, and objective are not aligned with academic researchers. Out of desperation, scholars pay for them because they are affordable and offer access to smaller copyrighted papers.

²⁷ Despite reaching out to one library, we were unable to determine their entire holdings of microfilm. We were able to determine they have some reels, but do not know the complete date range. After this mention, they are excluded from the discussion about microfilm.

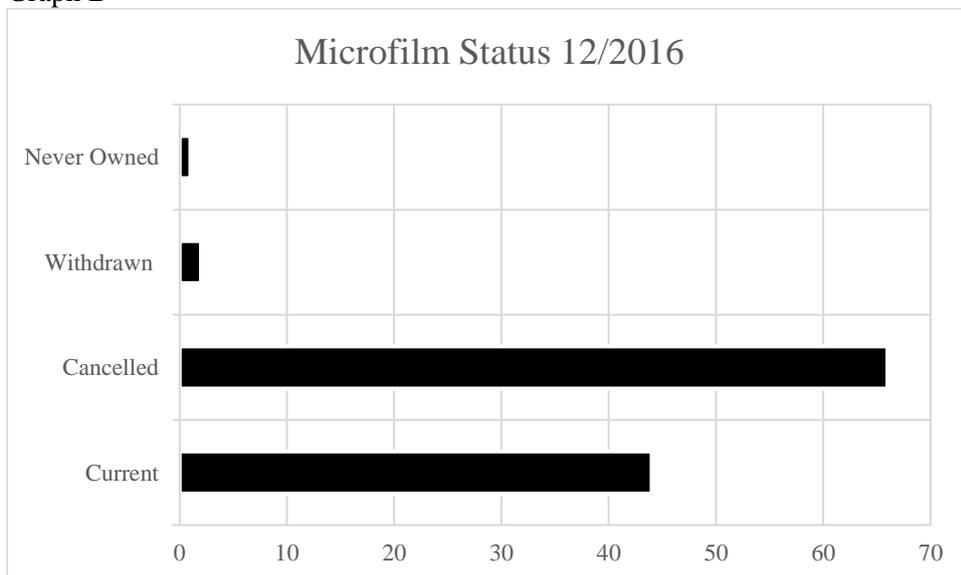
²⁸ The year designated as the cancellation year is the last year for which they received the film. So, the actual date of cancellation could vary depending on the billing cycle.

Graph A



By 2016, 96.5% or 110 of academic ARL libraries owned ProQuest's *HNYT*. Of those four without the digital backfile, two were Canadian, one still purchased the microfilm, and the other institution owned the shortest run of microfilm among the libraries examined. Most likely the institutions without the *HNYT* can still access various dates in aggregators databases. But these are subscriptions that lack full-page images. Many libraries moved their microfilm to remote storage and two others have withdrawn their microfilm backfile. [See Graph B] The essential format to access the *NYT* had changed.

Graph B



The data from the ARL libraries and their *NYT* ownership provides a small case study to analyze current trends of acquiring and providing national newspapers. While it is impossible, given how this study was conducted, to know when libraries purchased *HNYT*, it is highly likely that many of them continued adding the microfilm after they purchased the digital backfile. Eventually many ended this duplication. Perhaps the digital product appeared reliable and the microfilm seemed redundant. For some, physical storage may have been an issue. However, the greatest number of libraries stopped acquiring the microfilm during the Great Recession. Likely in an effort to trim budgets, they no longer

believed collecting multiple formats was financially responsible. It is anticipated that the number of libraries purchasing the microfilm will continue to decrease.

Although a small study, there is much to ponder. These are the largest libraries in North America. For their patrons, the online version is more convenient to access than the microfilm, it uses familiar keyword searching, provides increased functionality, and frees space. Perhaps more important is how their decisions will influence researchers at other institutions. These libraries have the responsibility of maintaining the historical record. But the digital product cannot be lent. When librarians contemplated canceling and withdrawing the microfilm, they likely did not consider how this might affect others.

Copyright is one of the greatest factors when considering access. Public domain, or unrestricted access, to newspapers ends after 1923. Unsurprisingly, commercial and free digital sources have focused on the unrestricted years. As a result, it is easier to research the 1880s than the 1980s. While it is important to reward/pay for intellectual property, this constraint is a huge problem for anyone doing historical research. If libraries own the paper or the microfilm, they cannot just scan it and make it available. In addition, by relying on commercial entities to provide digital products, librarians often end up purchasing the same content for the third time at a very high rate. Researchers do not understand copyright and the ways it influences what they can and cannot find. If they are unwilling to dig beyond their keyboard, they will miss important information.

If barriers to access continue to increase, does the current marketplace have solutions? Access to historic newspapers will continue to be restrictive, and perhaps decline. Presently the greatest division is between copyright and public domain materials. In the United States the current date is 1923. Consequently, there is an abundance of nineteenth-century resources. From local digital projects to major undertakings such as the Library of Congress' (LOC) *Chronicling America* this era of publications abound on the Internet.

Preservation

Preservation, essential for discovery and access, is riddled with crisis, conflict, and unresponsiveness. Some runs of newspapers remain only on deteriorating paper, while others were filmed and their print run destroyed. Commercial companies and librarians thought little about which versions to preserve and consequently much of our news is already lost.²⁹ And while microfilm has a long life span it too will decay. There are papers that will transition from paper to film or to digital content. Librarians must continue to be concerned with the preservation of all three formats.

The small portion of what has been digitized or was born digital is not safer than other formats. Preservation issues associated with digital news vary depending on the type of material and its owner. To purchase commercial newspaper databases, libraries pay a large initial fee, followed by a yearly access fee. If a library can no longer pay that annual fee, they might lose access, despite having purchased the content. This arrangement relies on the vendor both preserving the content and staying in business. Digital archives, newspapers, and manuscripts are not archived by third party organizations as are journal articles.

Free content on the internet might provide the greatest problem to the preservation of digital historical newspapers. When Google announced it would provide free access to historical newspapers in 2008, it promised to be a game-changer. Although there was no easy way to print or save materials and the functionality was not intuitive, the articles were free and unobtainable anywhere else. Three years later the project ended. The majority of the material that was added as part of this project remains

²⁹ Richard L. Saunders, "Too Late Now: Libraries' Intertwined Challenges of Newspaper Morgues, Microfilm, and Digitization," *RBM: A Journal of Rare Books, Manuscripts and Cultural Heritage* 16, no. 2 (2015): 131-33.

freely available, some of which is still under copyright. However, the longevity and accessibility of their life on Google's server remains unknown. Any project must be considered temporal.

In the past newspapers could disappear with a flood, tornado, or fire. Today much of our newspapers are housed on servers and can be purposely destroyed or made inaccessible. In Milwaukee, the backfile of the two largest papers were part of the *Google News Archive*. Scans for thirty years of the content had been created from a local public library's microfilm. These images remained freely searchable until the summer of 2016, when Gannett, the owner of the descendant of the papers required Google to take down and turn the files over to Newsbank. Overnight the formerly free files vanished. Shortly thereafter Newsbank asked the city's library to pay 1.5 million dollars to buy the historical product which included the library's scans. Attributed to a misunderstanding, in the fall of 2016 temporary access resumed, but Newsbank continues to hold the digital rights.³⁰

Despite the fact that the news is changing significantly, publishers are still offering and librarians are still buying the same products, just in different formats, as twenty years ago. This raises many questions. Are librarians, archivists, and information vendors, preserving the right news sources for historians to study in thirty years? While library collections will contain captured images of current newspapers, is the printed page how our contemporaries read the news? How will the absence of comments, ads, or interactive features affect how a scholar will interpret and understand the news in thirty years? Who defines news, and are there sources of news beyond newspapers?

The dissemination of news in 2017 is significantly different from 50 years ago. *Twitter* serves as the current United States' presidential administrations press release and *Teen Vogue* publishes cutting edge journalism on their online platforms.³¹ Neither *Twitter* or *Teen Vogue* fit within the traditional content retained by research libraries. The LOC began an ambitious project to archive *Twitter*, but it has failed to materialize.³² Perhaps the LOC's inability to launch this is foretelling about the future and an indication that much of our news will be lost.³³ The National Archives and Records Administration has informed the Trump administration to keep all of the president's tweets, including deleted tweets. How this will be done and future accessibility remains unknown.³⁴ A private effort, by Brendan Brown, identified by the *Washington Post* as a, "Boston-based programmer" to archive President Donald J. Trump's tweets, exists with no information concerning future site maintenance and preservation.³⁵ *Archive.org* also provides preservation, but its thoroughness and funding model

³⁰ Michael Home, "Library Charged \$1.5 Million For Journal Archive," *Urban Milwaukee*, (August 23, 2016), accessed January 6, 2017, <http://urbanmilwaukee.com/2016/08/23/library-charged-1-5-million-for-journal-archive/>; Michail Takach, "Journal Sentinel Archive Disappears," *Urban Milwaukee*, (August 19, 2016), accessed January 6, 2017, <http://urbanmilwaukee.com/2016/08/19/journal-sentinel-archive-disappears/>.

³¹ Sophie Gilbert, "Teen Vogue's Political Coverage Isn't Surprising," *The Atlantic* (December 12, 2016), accessed April 5, 2017, <https://www.theatlantic.com/entertainment/archive/2016/12/teen-vogue-politics/510374/>.

³² Andrew McGill, "Can Twitter Fit Inside the Library of Congress?," *The Atlantic*, (August 2, 2016), accessed February 9, 2017, <https://www.theatlantic.com/technology/archive/2016/08/can-twitter-fit-inside-the-library-of-congress/494339>.

³³ For the most recent update from LOC about the project see, Library of Congress, "Update on the Twitter Archive at the Library of Congress," (January 2013), accessed March 27, 2017, https://www.loc.gov/static/managed-content/uploads/sites/6/2017/02/twitter_report_2013jan.pdf.

³⁴ Stephen Braun, "National Archives to White House: Save All Trumps Tweets," *AP The Big Story* (April 3, 2017), accessed April 4, 2017, <http://bigstory.ap.org/article/60fd5d6a7ad942a083d1e6388b0c7b87/national-archives-white-house-save-all-trump-tweets>.

³⁵ Abby Ohlheiser, "A Look at the 170 Times Donald Trump has Tweeted about the 'Losers,'" *Washington Post* (September 22, 2016), accessed March 27, 2017, https://www.washingtonpost.com/news/the-intersect/wp/2016/09/22/a-look-at-the-170-times-donald-trump-has-tweeted-about-the-losers/?utm_term=.72243017208e; The "Support" button on the page is revealing. *Trump Twitter Archive*, accessed March 28, 2017, <http://www.trumptwitterarchive.com/>.

leave it as an imperfect option. If the LOC project never comes to fruition and private projects are unstable, is there any hope for preservation? Libraries and researchers are currently forced to rely on the original publishers and providers to maintain archives.

This chaos in born-digital news, whether in traditional newspapers or in the realm of social media, threatens the cultural and historical record. Preservation of copyrighted material is driven by market forces and dependant on newspaper publishers, vendors, and libraries interaction. A state-wide survey of Maine libraries, archives, newspaper publishers, and researchers found that no one really has a plan to preserve and provide access to digital news. Newspaper workers seem to believe that because the content is digital, it will be preserved, including the social media pieces. Libraries, who have been responsible for preservation in the past, have no plan and often lack the skills to store and provide future access to born-digital news.³⁶

Since 2014 the Donald W. Reynolds Journalism Institute (RJI) at the University of Missouri has held a series of conferences entitled, “Dodging the Memory Hole,” to address the pending loss of born-digital news. In preparation for the 2014 conference, Carner, McCain and Zarndt conducted a survey of 670 producers of either wholly born-digital news or hybrid (both print and born-digital) news. While the majority of both types of producers backed up their online content, 40% of hybrids did not. The majority of both types of producers have no in-house written preservation policies. Only 11% of born-digital content is preserved by some kind of library or institution, as opposed to 60% of hybrid producers.³⁷

Born-digital news is at great risk of being lost. The future of news, preservation requires cooperation amongst different stakeholders with different needs. Copyright, ownership, and negotiated contracts as well as stakeholders needs change the preservation environment for born-digital news. Previous patterns, with libraries playing a major role in discovery, access, and preservation, are challenged in the born-digital era.

Conclusion

The historical newspaper crisis is real and extends well beyond the basic points raised here. In the past new formats, usually increased access and librarians did not need to be concerned. But this is no longer the case. The limitations of all forms of historical materials should give pause--one is not a total replacement for another. Librarians must consider their collections and how their patrons will research in the future.

It is also important to acknowledge how discovery, access, and preservation will affect research practices and scholarship. Homogenous collections lead to homogeneous results. Andrew Hobbs in his article, “The Deleterious Dominance of *The Times* in Nineteenth-Century Scholarship,” argued that an index and microfilm made *The Times (London)* the paper of choice. It was the easiest to use of the British papers, which resulted in it serving as a source, even when another paper was the better choice, and, in the end, was simply consulted and used.³⁸

Researchers perceive even visiting the local library to use microfilm as inconvenient and a deterrent to simply “find something online.” Scholars want to do their work from home and prefer keyword searching to find their material. The number of digitized newspapers is low and copyright will

³⁶ Jennifer E. Moore and Jennifer L. Bonnet, “Survey Finds Differences on Preserving Born-Digital News,” *Newspaper Research Journal* 36, no. 3 (2015), 348-362.

³⁷ Dorothy Carner, Edward McCain, and Frederick Zarndt, “Missing Links: The Digital News Preservation Discontinuity,” International Federation of Library Associations/WLIC 2014 Newspaper Section Satellite Conference (August 4, 2014), accessed April 11, 2017, https://www.ifla.org/files/assets/newspapers/Geneva_2014/s6-carner-en.pdf.

³⁸ Andrew Hobbs, “The Deleterious Dominance of *The Times* in Nineteenth-Century Scholarship,” *Journal of Victorian Culture* 18, no. 4 (2013), 490.

continue to keep much of the Twentieth Century material inaccessible. Only those willing and able to travel will dig in archives, visit small historical societies, sit in front of microfilm readers, and seek out editions beyond those chosen for digitization. Scholars need to understand how digital archives retrieve, how to use synonyms, and to accept that keyword searching is not exhaustive.

Librarians have not actively engaged in conversations related to access, discovery, and preservation of the news. Librarians must consider and address:

- **Financial resources.** Budgets are not keeping up with inflation or providing extra funds for essential materials. New access models could decrease the divide between the collection have and have-nots. Further, funding in-house digitization is expensive, as the process requires equipment and skilled personnel.
- **Discovery Skills.** Print resources will always be valuable and librarians need the skills to use them. However, using these resources is not necessarily taught in library schools or valued by our fellow librarians. The skill set necessary to search for digital primary sources is different than other library databases.
- **Preservation.** Microfilm has been the steady standard format for preservation, and should continue to be produced. Digital and born-digital resources are in great danger of disappearing. Those interested in the future of news have differing opinions of what should be preserved. Historically, libraries have been the institutions that collected news for universal access.
- **Copyright.** Protecting intellectual property is important, but it is a barrier. Newspapers are unique resources because they are also the historical and cultural records of big and small cities and towns. Copyright holders, library vendors, and librarians must work together so that all parties involved are rewarded financially, but also so individuals can learn about the past.
- **Educate.** Users need to understand the limitations and benefits of all formats of news resources.

Librarians are faced with a double-edged sword. Digital products are revolutionary, they decrease barriers, and make it possible to find sources that in the past were simply difficult and tedious to find. However, the cost of these materials and the inability to share them create new barriers. Resource rich libraries, of which there are fewer and fewer, will provide their researchers with materials to write innovative work without leaving their sofa. These libraries are the same ones that have complete runs of indexes and large microfilm collections. Those who do not have easy access to such materials may face a difficult peer-review process because of unused primary sources. With born-digital, citizen journalist content and new forms of news aggregation, all of the stakeholders need to establish what is important to save. Discovery, access, and preservation of news of the past is complex, while news of the future remains in chaos and crisis.

Works Cited

Baker, Nicholas *Double Fold: Libraries and the Assault on Paper*. New York: Random House, 2001.

Bingham, Adrian. "The Digitization of Newspaper Archives: Opportunities and Challenges for Historians." *Twentieth Century British History* 21, no. 2 (2010): 225-231.

Braun, Stephen Braun. "National Archives to White House: Save All Trump Tweets," *AP The Big Story* (April 3, 2017). Accessed April 4, 2017.
<http://bigstory.ap.org/article/60fd5d6a7ad942a083d1e6388b0c7b87/national-archives-white-house-save-all-trump-tweets>.

- Brown, W. Burlie, "Microfilm and the Historian." *Mississippi Valley Historical Review* 40, no. 3 (December 1953), 513-518.
- Carner, Dorothy, Edward McCain, and Frederick Zarndt. "Missing Links: The Digital News Preservation Discontinuity." International Federation of Library Associations/WLIC 2014 Newspaper Section Satellite Conference. (August 4, 2014). Accessed April 11, 2017. https://www.ifla.org/files/assets/newspapers/Geneva_2014/s6-carner-en.pdf.
- Cates, Jo. A. "The Record of Record: The New York Times Index." In *Distinguished Classics of Reference Publishing*, edited by James Rettig, 174-179. Phoenix, AZ: Oryx Press, 1992.
- Cox, Richard J. *Vandals in the Stacks?: A Response to Nicholson Baker's Assault on Libraries*. Westport, CT: Greenwood Press, 2002.
- Dalton, Margaret Stieg and Laurie Charnigo. "Historians and Their Information Sources." *College & Research Libraries*, 65, no. 5 (September 2004): 400-425.
- Davis, Sarah Jane., "Disappearing News Archives," *Online Searcher* 40, no. 6 (November/December 2016): 45-49.
- Feeney, Mary. "Understanding News Researchers Through a content Analysis of Dissertations and Theses." *Qualitative and Quantitative Methods in Libraries (QQML)* 1, (March 2014): 263-270.
- Graham, Suzanne R. "Historians and Electronic Resources: Patterns and Use." *Journal of the Association for History and Computing* 5, no. 2 (2002). Accessed March 28, 2017. <http://hdl.handle.net/2027/spo.3310410.0005.201>.
- Gibb, Ian P., ed. *Newspaper Preservation and Access: Proceeding of the Symposium Held in London, August 12-15, 1987, vol. II, Edited for the Section on Serial Publications and the Working Group on Newspapers*. München: K.G. Saur, 1988.
- Gilbert, Sophie Gilbert. "Teen Vogue's Political Coverage Isn't Surprising." *The Atlantic* (December 12, 2016). Accessed April 5, 2017. <https://www.theatlantic.com/entertainment/archive/2016/12/teen-vogue-politics/510374/>
- Giullian, Jon. C. "'Seans chernoi magi na Taganke': The Hunt for Master and Margarita in the Pravda Digital Archive." *Slavic & Eastern European Information Resources* 14, (2013): 102-126
- Hales, Katharine Lareese. "Rebuilding Walls to Access and Service: The Impact of Electronic Resources on Resource Sharing." *Journal of Interlibrary Loan, Document Delivery* 22, (2012): 123-136.
- Hane, Paula J. "Bell & Howell Announce ProQuest Historical Newspapers Project." *Information Today* 18, no. 2 (February 2001): 1 & 54.
- Hobbs, Andrew. "The Deleterious Dominance of *The Times* in Nineteenth-Century Scholarship." *Journal of Victorian Culture* 18, no. 4 (2013): 472-497.
- Home, Michael. "Library Charged \$1.5 Million For Journal Archive," *Urban Milwaukee*, (August 23, 2016). Accessed January 6, 2017. <http://urbanmilwaukee.com/2016/08/23/library-charged-1-5-million-for-journal-archive/>.
- Jones, Barbara. "Indexing the Times," *Indexer* 11, no. 4 (October 1979): 209-211.

- Keller, Jared. "Google Shuts Down Newspaper Archive Project." *Atlantic* (May 20, 2011). Accessed, March 26, 2017. <https://www.theatlantic.com/technology/archive/2011/05/google-shuts-down-newspaper-archive-project/239239/>.
- Kimball, Jeffrey. *Nixon's Vietnam War*. Lawrence, KS: University of Kansas Press, 1998.
- Kyte, C.H.J. "'The Times' Index," *The Indexer* 5, no. 3 (1967): 125-127.
- LexisNexis, "The LexisNexis Timeline." Accessed March, 29, 2017. http://www.lexisnexis.com/anniversary/30th_timeline_fulltxt.pdf.
- Library of Congress, "Update on the Twitter Archive at the Library of Congress." (January 2013). Accessed March 27, 2017. https://www.loc.gov/static/managed-content/uploads/sites/6/2017/02/twitter_report_2013jan.pdf.
- McGill, Andrew, "Can Twitter Fit Inside the Library of Congress?" *The Atlantic*, (August 2, 2016). Accessed February 9, 2017. <https://www.theatlantic.com/technology/archive/2016/08/can-twitter-fit-inside-the-library-of-congress/494339>.
- Moore, Jennifer E. and Jennifer L. Bonnet. "Survey Finds Differences on Preserving Born-Digital News." *Newspaper Research Journal* 36, no. 3 (2015): 348-362.
- National Endowment for the Humanities. "U.S. Newspaper Program." Accessed March 29, 2017. <https://www.neh.gov/us-newspaper-program>.
- Patterson, Martha H. "Struggling to Keep Up." *The Chronicle of Higher Education*, November 5, 2007. Accessed December 17, 2016. <http://www.chronicle.com/article/Struggling-to-Keep-Up/46552/>.
- ProQuest. "ProQuest and Google Partnership Will Unlike Newspaper Content." (September 8, 2008). Accessed March 26, 2017. <http://www.proquest.com/about/news/2008/ProQuest-and-Google-Partnership-Will-Unlock-Newspaper-Content.html>.
- Ohlheiser, Abby, "A Look at the 170 Times Donald Trump has Tweeted about the 'Losers,'" *Washington Post* (September 22, 2016). Accessed March 27, 2017. https://www.washingtonpost.com/news/the-intersect/wp/2016/09/22/a-look-at-the-170-times-donald-trump-has-tweeted-about-the-losers/?utm_term=.2585d0dff413.
- Saunders, Richard L. "Too Late Now: Libraries' Intertwined Challenges of Newspaper Morgues, Microfilm, and Digitization." *RBM: A Journal of Rare Books, Manuscripts and Cultural Heritage* 16, no. 2 (2015): 127-140.
- Scribner, B. W. *Preservation of Newspaper Records*. National Bureau of National Standards, Miscellaneous Publications, vol. 145. Washington: GPO, 1934. Accessed March 13, 2017. <https://www.govinfo.gov/content/pkg/GOVPUB-C13-b21ddfafbc804fa5aecf884a38574630/pdf/GOVPUB-C13-b21ddfafbc804fa5aecf884a38574630.pdf>.
- Starkey, Edward. "Selective Overview of Newspaper Indexes -- 1986." In *Newspapers in the Library: New Approaches to Management and Reference Work*. Lois N. Upham, ed., 133-141 New York: Haworth Press, 1988.
- Straw, Joseph E. "When the Walls Came Tumbling Down: The Development of Cooperative Service and Resource Sharing in Libraries: 1876-2002." *The Reference Librarian* 83/84, (2003): 263-276.

- Takach, Michail, "Journal Sentinel Archive Disappears," *Urban Milwaukee* (August 19, 2016). Accessed January 6, 2017. <http://urbanmilwaukee.com/2016/08/19/journal-sentinel-archive-disappears/>.
- Tanner, Simon, Trevor Muñoz, and Pich Hemy Ros. "Measuring Mass Text Digitization Quality and Usefulness." *D-Lib Magazine* 15, no. 7/8 (2009). Accessed, April 7, 2017. <http://www.dlib.org/dlib/july09/munoz/07munoz.html>.
- Tiftt, Susan E. and Alex S. Jones. "How to Be the Newspaper of Record." *Key Words* 10, no. 1 (2002): 23.
- Trump Twitter Archive*. Accessed March 28, 2017. <http://www.trumptwitterarchive.com/>.
- Weaver, David A. and Bruce Bimber. "Finding News Stories: A Comparison of Searching Using Lexisnexis[sic] and Google News." *Journalism and Mass Communication Quarterly* 8, no. 3 (September 2008): 515-530.
- Youngblood, Norman E., Barbara A. Bishop, and Debra L. Worthington. "Database Search Results Can Differ From Newspaper Microfilm." *Newspaper Research Journal* 34, no. 1 (Winter 2013): 36-49.