Future-Proofing the News: Preserving the First Draft of History. By Kathleen A. Hansen and Nora Paul. Lanham, MD: Rowman and Littlefield, 2017. 274 pp. Hardback. \$35.00.

Readers approaching Future-Proofing the News: Preserving the First Draft of History expecting a practical how-to manual for news media archivists will be disappointed. Instead of a guide to preservation strategies, as the title might suggest, this work presents a compelling narrative of major news forms in the United States and functions as a clarion call from authors Kathleen Hansen and Nora Paul to rescue "the first draft of history" from disaster, deterioration, and indifference.

As now-retired faculty members at the University of Minnesota's School of Journalism and Mass Communication, the authors bring a wealth of experience to the task. They cite two concerns that galvanized this study: the dwindling number of news archivists and internal news libraries within broadcast studios, and growing unease about vanishing web content. With these concerns in mind, Hansen and Paul address the general public and offer a sobering assessment: for the vast majority of news content producers "archiving that news output for future reference has been an afterthought—if it has been thought of at all" (p. 2). For Hansen and Paul, this first draft of history can only be saved for future access if news producers recognize the historical and cultural significance of their work, intentionally invest in preserving and stewarding news media content, and commit to working alongside archivists, librarians, and memory institutions to ensure a future for yesterday's news.

Future-Proofing the News is helpfully organized to guide the curious reader through three centuries of mainstream news history in the United States, scores of media formats, and a myriad of thorny preservation issues. The authors survey six distinct news forms in separate chapters, providing a brief history of their origins and development before detailing why these news forms were lost, the heroic efforts to preserve them, and current preservation challenges.

Chapter 2 inaugurates Hansen and Paul's chronological survey of news formats with a focus on newspapers. Here a depressing theme quickly emerges: despite the rapid growth and immense popularity of American newspapers from the colonial period onward, "news organizations themselves did precious little to guarantee their long-term availability for posterity" (p. 16). Notwithstanding the dedicated efforts of a variety of institutions and individuals, only an estimated 15 percent of all newspapers printed in the United States survive today. Much of this loss can be traced to the unique preservation challenges of newsprint. Since the rise of cheap newsprint made from highly acidic wood pulp in the late nineteenth century, news libraries and archival practitioners have raced the clock to preserve brittle and crumbling newsprint. These preservation concerns, however, only partially account for the catastrophic loss of American newspapers. News organizations commonly maintained "news libraries" to hold their clipping files, but tightened budgets, staffing restrictions, and storage limitations frequently combined to consign newspapers to the dust bin.

Similar themes of widespread loss and preservation nightmares recur in the next

chapter, which the authors devote to visual news media. Illustrations and photographs were also subjected to a litany of preservation woes. As with newspapers, preservation issues alone do not explain the loss of visual news formats. Hansen and Paul note, "For news organizations, archiving decisions were rarely based on potential future interest in the images. Instead, decisions were pragmatic" (p. 51). While news organizations maintained a "photo morgue," these collections could be weeded or discarded entirely as space became cramped or the organization downsized or relocated. Besides ongoing concerns of storage and budget, the authors identify the lack of "organizational mission" as a significant contributing factor to the loss of visual news (p. 56). News organizations navigated a constant tension between producing today's news and preserving their portion of the historical record.

Chapter 4 introduces the newsreel, the short-lived news format that debuted in the United States in 1911 and largely created using highly flammable cellulose nitrate film. Hansen and Paul open this chapter by recounting the 1978 fire at the National Archives and Records Administration in Suitland, Maryland, where over 12.5 million feet of newsreel were destroyed when nitrate film spontaneously combusted in the storage vault. The greatest threat to newsreels, however, was from the studio production companies themselves, that saw little historical value in their product. Standard practice for studios was to retain snippets for their stock footage libraries and to toss out distribution copies.

Radio news comes to the fore in chapter 5, tracing its origins to 1920. Due to the lack of high-quality recording formats, the first years of radio news were broadcast live and lost to history. By the time technical advances made radio news recording and rebroadcasting possible in the 1930s, the fragile electronic transcription discs were already at risk of damage and deterioration from mishandling and replaying. Despite the best efforts of memory and academic institutions and private collectors, radio news remains one of the least-preserved news formats. Hansen and Paul find this gap especially pertains to regional radio news broadcasts, where decades of local events and voices have been irretrievably lost.

First introduced in 1939, television news faced many of the same preservation hurdles as its predecessors, as detailed in chapter 6. News organizations focused their efforts on preserving footage snippets for future broadcasts with little thought for other uses. Growing storage and staffing costs ensured that many television news archives, if saved at all, were eventually discarded. The shift from film to digital video formats in the 1990s only introduced a new host of concerns. "The dizzying array of formats for capturing news images, editing the footage into broadcasts, logging the images and sounds into the broadcast production system, and keeping track of everything over time led to the situation we have today," where obsolete software and file formats render the past inaccessible (p. 139).

Taken together, chapters 7 and 8 describe the digital revolution and explosive rise of digital news, assuring readers that, despite popular assumptions, the Internet is not forever, and the Wayback Machine alone cannot solve the growing crisis of disappearing

web news. Other preservation nightmares include the ongoing struggle to preserve the aging equipment and software required to read and preserve digital news content before the onset of "bit rot." Today, as users increasingly turn to social media platforms to access news content, Hansen and Paul issue the stern warning, "If your archival strategy is to assume everything is on the Internet, you don't have an archival strategy" (p. 200).

In the final two chapters, Hansen and Paul shift their focus from preservation to access, claiming "the most important aspect of news preservation is whether and how it is *now* available for use by researchers, historians, journalists, librarians, and citizens" (p. 215). The authors identify four ongoing challenges to access. The first challenge is simply to *locate* news media content, no small feat when collections can be scattered in bits and pieces across a range of memory institutions and private archives. Another obstacle is access to the content itself. Researchers can be hampered by copyright restrictions, geographic barriers, and lack of playback equipment, among other hurdles. Third, once they have access, many users find it impossible to navigate news media collections without the aid of indices, catalogs, finding aids, and other search tools. Finally, researchers who locate news media content can find themselves unable to duplicate or use the content due to copyright restrictions. As the authors rightly point out, a well-preserved news media archive is next to useless if it cannot be located, accessed, searched, and reused.

In *Future-Proofing the News*, Kathleen Hansen and Nora Paul offer a valuable contribution to news media history. The book is particularly successful in two areas. First, it effectively dispels the assumption that because news media content is everywhere, news media content is forever. Further, readers will be sobered to learn that the greatest resistance to news media preservation and access often comes from its creators, whose allegiance is to the news of tomorrow not yesterday.

Although it presents a head-spinning amount of information, Future-Proofing the News succeeded in leaving this reviewer wanting more. Each news form covered here could easily merit a book-length treatment. A noticeable omission, however, is the lack of attention given to news forms created by and for regional, local, or ethnic communities. While the authors acknowledge that the intentionally wide scope of the project prevented greater research into these areas, one wonders how the story of news media disappearance in the United States might be enhanced if focused on these lesser-known and more at-risk news media, like the All-American Newsreel, produced for Black audiences in the 1940s. In spite of these minor complaints, Hansen and Paul provide a compelling overview of three centuries of news media loss in the United States and sound a much-needed wake-up call to creators and consumers of tomorrow's news to foil this repeating pattern.

Katherine J. Graber Special Collections Librarian Wheaton College