

Book Review

Averting the Digital Dark Age: How Archivists, Librarians, and Technologists Built the Web a Memory, By **Ian Milligan**, Johns Hopkins University Press, 2024.

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Averting the Digital Dark Age by Ian Milligan (Johns Hopkins University Press, 2024, 208 pp., ISBN 9781421450131) retraces the key milestones and actors of the early archiving programmes that laid the groundwork for preserving the web. Building on Milligan's previous work (e.g., Milligan 2016, 2022, 2023; Milligan et al. 2016), the book makes a significant contribution to historical scholarship by examining the social and organizational infrastructures that have enabled the web to remember, while also highlighting lessons from this shift that may inform the preservation of future forms of new media. As Milligan notes, the web does not possess a built-in memory system (Milligan 2024, 4); instead, this role falls on memory institutions. One of the central arguments of the book is that web preservation has never been solely a technical challenge but is fundamentally an organizational one, requiring sustained institutional commitment and long-term strategies to ensure the ongoing maintenance and accessibility of born-digital information.

Drawing from a variety of sources and conversations with key figures, Milligan takes the reader on a journey through time, from the web's early manifestations, through the growing recognition of the ephemerality of web-based material and the spectre of a digital dark age, to the development of the first web archiving initiatives. The opening chapter sets the tone with a reflection on the importance of understanding how archives come into being, as the ways in which they are developed significantly shape how we understand the past (Milligan 2024, 17–18). Milligan provides an overview of the evolution of digital preservation and examines how digital information challenged traditional archiving practices, requiring archivists and library professionals to adapt their methods to the dynamic and fragile nature of digital information. As the web began to gain widespread popularity in the mid-1990s, it became clear that the field of digital preservation needed to evolve in order to capture and safeguard the collective memory emerging online. Drawing on the limited evidence available and the “memory holes of pre-web networked culture,” the chapter situates early web archiving efforts within broader concerns

about loss, ephemerality, historical continuity and representation (Milligan 2024, 34). Chapter two further explores the idea of “Digital Dark Age” and the discussions that helped to form the social and cultural consensus necessary for preserving the web. As Milligan notes (38), between 1995 and 1998 a series of “thought leaders” – including Margaret Hedstrom, Microsoft executive Nathan Myhrvold, and the science fiction author Bruce Sterling – helped reframe digital preservation from a primarily technical issue, initially perceived as a threat to corporations and governments' records, into a broader social problem that endangered collective cultural memory. Moreover, Milligan highlights the tension between a technologist approach advocating a form of benign neglect, encapsulated in the “collect it all and sort it out later,” and a more traditional archival approach that emphasizes selection, curation, context, and descriptive metadata, which are examined through case studies in the following two chapters.

Chapter three explores the Internet Archive's origins and development of the first major web archiving initiative. The chapter traces how, in 1995, Brewster Kahle, using funds from the sale of his previous company WAIS Inc., established the Internet Archive, one of the first major non-profit web archiving initiatives. In pursuit of the utopian vision of a “universal library,” as Milligan notes, Kahle gradually expanded the Archive's scope from “building the web's memory” to “making memory in the web” (101). While the privileged position of the Internet Archive has certainly allowed it to pursue paths unavailable to many national memory institutions for at least a decade, as Milligan duly observes, concerns regarding the overreliance on the Internet Archive (especially in areas of the Global South) and the long-term sustainability of such an important initiative could have been explored further. In particular, additional considerations, especially in the concluding chapter, might have addressed questions about what would happen to preserved memory should the Internet Archive cease to exist, and how this risk might best be mitigated.

Chapter four illustrates the evolution of web archiving at various national libraries through four key institutions and related projects: the national libraries of Canada, Sweden (Kulturarw3), Australia (PANDORA) and the US Library of Congress (MINERVA). While condensing four case studies in just one chapter limits the socio-technical, organizational, and cultural analysis that is required in similar comparative studies, Milligan manages to summarize key aspects and decision-making processes that shaped these early web archiving initiatives, highlighting the impact that their

actions had on the preservation of the national web domains. Following the discussion about the tensions described in chapter two between selective and comprehensive archiving, Milligan structures chapter four around that tension, bringing examples related to each of the two approaches. The reasoning behind the decision to archive comprehensively or selectively often depends on a variety of factors, including but not limited to funding, legal frameworks (e.g., legal deposit, copyright obligations), and technical difficulties. Yet, as Milligan concludes through the words of archivists who contributed to shaping those early web archiving initiatives, one approach does not exclude the other but can be complementary, moving beyond what he calls a “false dilemma” (136).

In Chapter five, Milligan brings together the threads woven in the previous chapters to examine how the web archiving community responded to and adapted existing strategies in the face of an unexpected and rapidly evolving event. Through the case of the attacks of September 11, 2001, which he described as “the first major disaster of the web age” (138), Milligan argues that this moment demonstrated how a digital dark age was, in broad terms, averted. Milligan further illustrates the impact of this event on the web archiving community, particularly in contributing to the legitimization of the work carried out by institutions such as the Library of Congress, where pilot projects were consolidated into long-term programmes. It has been thanks to the progress and experience matured during those first few years of web archiving that information relating to more recent events such as the Paris and Nice terrorist attacks in

2015 or the COVID-19 pandemic could be preserved, despite all the new challenges that emerged with the evolution of the web.

Averting the Digital Dark Age provides valuable insights into the historical and organizational contexts that shaped the emergence of web archives and the web archiving community, offering a framework for understanding not only how the web remembers but why it remembers as it does. By focusing on the experiences of web archivists and early practitioners, Milligan highlights the importance of web preservation efforts while also inviting readers to critically reflect on the responsibilities, ethical questions, and practical challenges that continue to shape the future of our born-digital cultural heritage.

References

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