reference that is empathetic, egalitarian, and feminist with empathy and vulnerability at the core. This section also considers the vulnerable role of minorities within librarianship and that of librarians, especially librarians with faculty status, who exist in a forgotten or marginalized space in comparison to other faculty members. Like critical information literacy, critical reference uses teaching philosophy to address the whole person in reference and consultations, acknowledges the privilege that exists for many librarians, and adopts social justice theories from education and social work.

Anyone who is curious about the role of social justice in reference or libraries should read this book; it does not focus solely on one type of library or archive, so it can be useful to all librarians. The authors and editors expose some practices and theories that can assist libraries and archives in social justice work, as well as some surprising areas where the library or the archive is the place where disenfranchised people find support. Personally, I could relate some part of each section of this text to my work within libraries and the type of service I hope to provide as a reference librarian. I was especially moved by the stories of human connection both in the preface by Maria T. Accardi and throughout the book: libraries playing a role in helping people feel whole by shining a light on struggles and the way they are supported.—*Elise Ferer, Drexel University*

Niels Brügger. *The Archived Web: Doing History in the Digital Age*. Cambridge, MA: The MIT Press, 2018. 200p. Hardcover, $30.00 (ISBN: 978-0-26203-902-4).
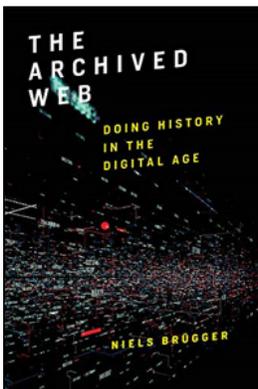
Visit the Internet Archive's "Wayback Machine," and you will find an invitation at the top of the page to view hundreds of billions of archived web pages—384 billion at present. Impressive as that number is, more impressive still is the fact that the Internet Archive has been preserving web pages since 1996, or, in other words, since more or less the beginning of the web. This was a prescient act indeed. If the rush of historical change, whatever the matter may be, is liable to confuse us in the short term—to be characterized by, as Fernand Braudel once said in *On History* (Sarah Matthews, trans., University of Chicago Press, 1980, 28), "our illusions" and "our hasty awareness"—then the Internet Archive certainly managed to bring a measure of clarity and reflection to the early days of the web. And now, more than 20 years later, it is no coincidence that the Internet Archive itself is touched on in the excellent book under review here, Niels Brügger's *The Archived Web: Doing History in the Digital Age*. Brügger, Professor and Head of NetLab and of the Center for Internet Studies, Aarhus University, takes the measure of the web as a valid and independent repository of raw material for history—as "a historical source in its own right," despite not yet being widely seen as such (12). He leverages the passage of time deftly and with numerous insights on the first quarter century of the web's existence. He writes for an audience of historians and other scholars who would seek to use web archives in their research, but the result is a work that proves richly instructive and valuable for librarians and archivists too.

Brügger's premise is that the already observable use of web archives for historical research will only continue to increase and that over time it will become difficult and even downright impossible to do history without consulting the past web in its intentionally preserved forms. "If," he writes, "we acknowledge that historical research is now facing a major qualitative as well as quantitative shift in source material—the shift from nondigital to digital media, and

the growth of digital material—historians are probably on the threshold of an era where digital history is no longer an additional choice, but a state of affairs where opting out becomes gradually more difficult" (13). The gently cautionary language here is no doubt warranted, but it should be said that the tone of the book remains quite moderate throughout. Brügger's project is smooth to point out the complexities of web archiving and careful to break them down. He does so through a keenly organized set of chapters offering an array of insights.

At the outset, Brügger states that his book will be more theoretical than practical, an analysis of the archived web as "a semiotic, textual system" (7) rather than a how-to guide on assembling a web archive oneself or a study of web use or users. Nonetheless, he displays a wide range of technical expertise both directly and indirectly, underwriting his main argument that the archived web is distinct from other kinds of digital objects. For Brügger, "the archived web is in many ways fundamentally different from other digital sources, such as digitized documents, print and audiovisual media, and even online media" (3). In fact, the central series of observations put forward by Brügger centers exactly on the three-fold distinction he makes among digitized sources, born-digital sources, and what he calls "reborn" digital sources, the last being the stuff of web archives. Brügger subtly elaborates on the "specific digitality" of the archived web, which requires paying attention to "how the online web became the archived web—that is, how it was collected and preserved" (5–6). This very act of capturing the web for posterity demands our notice. As Brügger shows in the body of his text, the materials in a web archive vary in technical, practical, functional, and other ways from their original online forms, and they continue to vary afterward as they are accessed and sometimes further modified according to a researcher's needs. In Brügger's view, then, such changes should prompt us to reassess "traditional historiographic methods" (7) and to consider the suitability of new research methods to the creation of web history.

Web archives are, strictly speaking, all of those willfully assembled and preserved collections of web materials that no longer appear online in real time, and they enable "web history" understood by Brügger as two things: 1) studies of the web itself; and 2) studies that take something other than the web as their primary subject but incorporate web archives as sources nonetheless (15 and throughout). Chapter 1 of the book establishes this double meaning of web history, which in turn anticipates a whole series of other dualities that Brügger gradually weaves into the rest of the text, only the most obvious of which is the split between the displayed web page and the HTML code behind it. The latter is a digital duality, and chapter 2 continues by unpacking the increasingly intricate tensions that spin off it. "It is striking," Brügger says, "how much has been published in recent years about new cultural objects such as 'digital media' and about new academic fields such as 'digital humanities' …but how little effort has been put into reflecting on the core of these novelties, the digital itself" (17). The second chapter does a nice, concise job of redressing that omission. Next, chapter 3 proposes five "web strata" as interrelated units of analysis for web history, ranging from the "web element" at the narrowest level to the "web as a whole" at the broadest (31 and throughout).

The fourth chapter is easily the longest of the book, more or less double the length of the other chapters and the one dedicated to reviewing concrete examples of web history. For readers less familiar with web archives as sources and the kinds of questions researchers may ask of them, this is an especially useful portion of the book, though the considerable number of examples brought together by Brügger here do make this a fascinating general summary of the state of the art. Chapters 5 and 6 follow with discussions that likewise come nearest

to offering the sort of practical advice that otherwise lies beyond the stated objectives of the book. The fifth chapter begins by noting the "constructed" nature of web archives, which are therefore "always biased to some extent" (74). Brügger then proceeds to focus on the "forms" of web archiving (such as web crawling) and related questions regarding how to delimit the scope of any web archiving project. Chapter 6 is something of a mini-guide to available web archives, including of course the Internet Archive with mention made of national and university library web archives too.

The ensuing three chapters return the book to its broader, more theoretical themes, with the analysis intended primarily for an audience of historians and other scholars. Chapter 7 delves into "some of the main characteristics of the archived web, as a researcher may find it in a web collection, ready to be used as a historical source and interacted with through the research process" (103). We learn here of the transformations that often continue to occur after the initial act of collecting web materials is complete. As Brügger states, "a crawled web collection is malleable" (111). Both chapter 8 ("Scholarly Use of the Archived Web") and chapter 9 ("Toward a Source Criticism of the Archived Web") demonstrate Brügger's historical sensibilities and provide fresh contributions to the methodological issues entailed by web archives.

The book concludes with two short chapters looking to the future. Brügger makes room in these final pages to alert us to "some of the persistent holes in the digital source ecology," such as email and social media (149–50). Yet, reflecting on nearly 10 years of his own involvement in web history, he rightly underscores "how much has actually been accomplished" (158). A good deal of these achievements will surely continue to benefit from the participation of librarians and archivists, who will find in this book a timely and relevant discussion. While we are still a few decades away from entering the *long durée* of web history, Brügger has adeptly stood within the *conjuncture* and given us much food for thought in the medium term.—*James Kessenides, Yale University*

Pushing the Margins: Women of Color and Intersectionality in LIS. Rose L. Chou and Annie Pho, eds. Sacramento, CA: Library Juice Press, 2018. 508p. $35.00 (ISBN 978-1-63400-052-9).
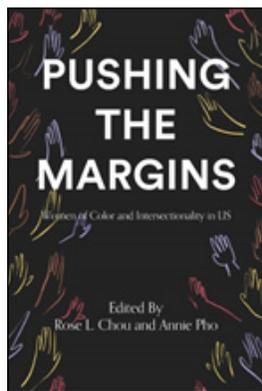
It should come as no surprise to anyone in library and information science (LIS) that our profession is composed overwhelmingly of white women. In this environment, the stories of people of color, especially women of color, do not receive sufficient attention. *Pushing the Margins: Women of Color and Intersectionality in LIS* brings to the fore the perspectives of those who are often silenced or ignored.

While each chapter asks different questions about the experiences of women of color (WOC) in LIS, they are all connected by a lens of intersectionality, or "the ways in which individuals with *multiple marginalized identities* experience oppression in more complicated ways" (4). The collection begins with a foreword by Fobazi Ettarh, who lays out three different forms of intersectionality—structural, political, and representational—defined by Kimberlé Crenshaw almost three decades ago. In their introduction, editors Rose L. Chou and Annie Pho establish this book as a space where the voices of WOC will take center stage to share their research and experiences, a space "that allows for conversations to pivot away from the traditional diversity paradigm by applying an explicit feminist and intersectional framework" (8–9).