

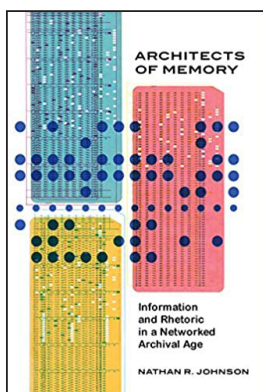
Watters describes how the movement for automated teaching grew in conjunction with standardized testing. Standardized testing created a market for standardized grading and teaching machines. Both were sold as a way to liberate teachers from grading, a common selling point for contemporary ed tech. She demonstrates how personalized learning advocates often critiqued education as being mechanized and one-size-fits-all. Missing all sense of irony, these marketers tried to put machines in front of every student as a strategy for making education *less* mechanized. To ed tech advocates, personalizing education means automating it. Over and over again, teaching machines are shown to be physical manifestations of ideas about teaching and learning. Ed tech advocates assume that education is an individual process, not a social one, that the Greek influence of a 1-1 instructor to student ratio was and remains ideal. They assume that to know a student means to test them through constant assessment. Students come to resemble the animals used in operant conditioning experiments across America during the height of behaviorism.

Watters further explores how organizations like The Freedom School attempted using teaching machines and found them to be antithetical to education as a practice of liberation. The Freedom School was a Black-led antiracist education network that focused on improving literacy rates and voting participation for Black people in Mississippi in the 1960s. Even when used toward ends such as improving the literacy rates of their students, these teachers concluded that automated teaching machines restricted agency and selfhood in their students, a fundamental value to their work. Unlike Skinner, these educators believe that teachers are meant to learn *with* students, not control them.

Watters does a masterful job of showing that ed tech, historically and today, is not just about technology; it is about people, markets, politics, culture, and power. It turns out that teaching machines have always and only ever enriched the people who made the machines, not the students they claim to have served. When faced with the decades-long pattern of for-profit tech companies overpromising educational *deus ex machinas* and the subsequent misguided adoption in classrooms, it can be tempting to conclude that mechanization is inevitable. Watters is adamant that it need not be, as long as our pedagogy is grounded in the freedom and dignity of the students trying to learn. — *Shea Swauger, University of Colorado Denver*

Nathan R. Johnson. *Architects of Memory: Information and Rhetoric in a Networked Archival Age*. Tuscaloosa: University of Alabama Press, 2020. 224p. Hardcover, \$49.95 (ISBN: 978-0817320607).

As our society increasingly recognizes the importance of what information others around us interact with, Nathan R. Johnson's *Architects of Memory: Information and Rhetoric in a Networked Archival Age* arrives as an important contribution toward understanding the memory infrastructures that underlie our collective remembering. Johnson defines memory infrastructures as "backgrounded resources for practicing memory" that "explicitly obfuscate social issues related to memory because they are built to do just that." (4) They also "consist of the backgrounds that expose particular modes of memory." (6) An example of this "background exposure" is the social tendency to "recognize debt as morally sinful, for example, is to read religious texts over the top of what it means to participate in a given nation's economy." (14) A key point here is that this reading of religious texts takes place in the



background and goes unacknowledged as the shared infrastructure that makes the concept that debt is morally sinful exist at all. We can think of memory infrastructures as shared conceptual frameworks for remembering that often obscure the human labor and human biases contained within their maintenance and creation. Additionally, memory infrastructures are not fixed and are created, disseminated, grow, and finally splinter. (17) In other words, they are fundamentally human creations.

Johnson also challenges academic librarians to think critically about our information literacy (IL) work. The stakes are made clear in the introduction. He writes that “the question I suggest asking instead of ‘What is the credibility of this information?’ is ‘What sort of public memory does this information invoke?’” (9) He returns to this same concept a few sentences later, asking, “what sorts of publics are being produced, repeated, and amplified by the sociotechnical regimes of memory? These kinds of questions have much more to do with the ethos of the infrastructures of memory, an age-old problem, rather than the invention of a new information literacy.” (9) This book challenges us all to reflect on how many of our current forms of (IL) teaching and learning might more productively deal with concepts like misinformation by framing them as questions about what kinds of publics are amplified by the memory infrastructure that undergirds misinformation rather than as a right/wrong, true/false dichotomy.

First, this rhetorical history highlights the actual labor that went (and continues to go) into the creation of memory infrastructure. Throughout the book, Johnson problematizes the idea that memory infrastructures (from Simonides to the Present) are neutral by showing the very human labor that produces them and their mnemonic techné (“specific techniques that support remembering or forgetting but depend on the resources of an encompassing infrastructure” [26]). To make his argument, Johnson nominally traces the history of the creation of Library and Information Science out of the strange marriage of information science (inspired by Organization Research thinking after World War II) and traditional librarianship. The narrative of this partnership is all framed by the field of Rhetoric’s founding myths of memory (namely Simonides of Ceos and Juno Moneta). Johnson effectively illustrates how mnemonic techné provide durable signs of the underlying politics of memory infrastructures. The coins of memory’s realm are exposed as power signifiers rather than as neutral memory objects. The book sets out to highlight “the invisible politics that keep public memory functioning” (12). Johnson foregrounds intriguing aspects of the development of Information Science in the second half of the twentieth century. Specifically, he focuses on “movements between memory infrastructure and mnemonic techné” through the story of how information science created a particular memory infrastructure as it merged (if uneasily) with traditional librarianship in the second half of the twentieth century (27).

The book is deliberately organized in discrete sections that attend to theory, history, and thick descriptions of various concrete examples. The opening chapters lay out the theoretical and rhetorical framework of the book while posing intriguing questions like the ones I cite above. In a certain way, these chapters could be read on their own as a thought experiment about what it might mean to think through the ways that memory infrastructures are political acts that reinforce what should and should not be remembered or forgotten.

The central chapters weave a narrative of the rise of information science as it collides with, is shaped by, and in turn shapes traditional librarianship over the course of the post-World War II years. Johnson describes the ways that the war fundamentally breaks longstanding modes of

scientific information sharing. As he moves to the post-War era, Johnson illuminates the highly funded push to organize scientific information and create systems for its efficient retrieval. This new information science clashes with librarianship (for reasons that include academic institutional funding and philosophy of purpose) for an extended period from the 1950s through the 1980s. The story he tells is fairly simple: the introduction of information science creates computerlike ways of thinking and is gendered by participants as male. This sets up a clash with librarianship, gendered female and concerned with morality and ethics. In Johnson's story, the two fields develop an uneasy alliance and partnership by the end of the twentieth century. The memory infrastructure that emerges from this partnership is what this book is truly interested in. Johnson leaves space for the reader to draw connections between these intersecting histories and his central theme of the human and political labor involved in creating memory infrastructures.

The intermezzos illustrate the concrete ways that memory infrastructure creates and shapes mnemonic techné, and vice versa. For librarians, the intermezzo on Dorothy Crosland's book truck will prove informative in terms of how mnemonic techné and memory infrastructure interact and will offer a good chuckle. In fact, this intermezzo is perhaps the clearest and most succinct way into understanding the theme of human labor as embodied in mnemonic techné. In this section, Johnson most clearly articulates how memory technologies "occupy space," are inherently political, and "provide more access to some people than others." (117)

The conclusion returns to a discussion of an expanded rhetoric of memory. Johnson rewrites the founding story of Simonides to "bring often backgrounded aspects of memory work to the foreground—material, affect, and shared infrastructure" (126). What he does here is rather brilliant. He takes the myth of Simonides's memory palaces and shows how they are not some incredible invention made up on the spot to support the identification of dead party guests, but are rather materially linked to the conditions that brought Simonides to the party in the first place. The foregrounding of the labor of memory is the real genius of this book. While many will find the middle chapters of the book an intriguing story, the real meat of the conceptual approach occurs here in this retelling of the classical rhetoric of memory.

I'll close this review with an extended quote that librarians, perhaps, would like to sit with for a while:

The desire to control memory is a desire to tame risk, uncertainty, fear, and paranoia of unknown—unknown people, events, and ideas. The desire to control memory points to unrest about whose memory to prioritize, and criticism about imperfect memory are just as accurately imagined as an affective identification with an authoritarian and partisan past, present, and future. When critics seek better control of memory, they simultaneously seek power over alternative forms of remembering and forgetting, forms that are often valued by conflicting publics and counterpublics. A "perfect" memory can only perform a limited assortment of activities, usually those that fit the needs of an even more limited public. It is far more important to encourage an imperfect memory that is able to adjust to the needs of ever-fluctuating publics. We will never be able to remember perfectly, and we should always be vigilant to retain the capacity to remember anew. (151)

Although this book is dense (and at times will prove difficult for readers not steeped in the field of Rhetoric), Johnson creates an intriguing theoretical and historical framework from

which to view what we call Information Literacy (IL) as a kind of public remembering (or forgetting). He challenges us to interrogate the affordances our mnemonic techné created for those less attuned to memory's infrastructure. To encourage all of us to continually remember anew, to think about the labor of memory: that is Johnson's provocative message.—*Anders Tobiason, Boise State University*

Catherine Knight Steele. *Digital Black Feminism*. New York, NY: New York University Press, 2021. 208p. Paperback, \$27.00 (ISBN: 978-1-4798-0838-0).



Catherine Knight Steele's *Digital Black Feminism* is the first scholarly monograph to center the experiences, contributions, and impact of Black women in technology and digital culture studies. Across five chapters, Steele charts the evolution of Black feminism and demonstrates how technology has always been an integral part of Black women's lives in the United States. By interrogating the ways in which Black women and Black feminists have continually engaged with technology, Steele proves that "Black feminist thought work has forever altered digital communication technologies" (8). As a Black feminist with scholarly expertise and experience as both participant and observer in digital Black feminist spaces, Steele is uniquely positioned to make this important contribu-

tion. Steele grounds her study in work set forth by Black feminists like Patricia Hill Collins, bell hooks, and Joan Morgan, delivering an approachable text that unpacks the important, nuanced ideologies of digital Black feminism.

Chapter 1, "A History of Black Women in Technology, or Badges of Oppression and Positions of Strength," reviews the placement and treatment of Black women as laborers in the United States. Throughout the nineteenth and twentieth centuries, Black women developed the technical expertise required to complete and advance domestic, agricultural, and communicative tasks. This same technological expertise also provided a way for Black women to both navigate and resist the social and political structures in place that were designed to uphold their oppression. Steele traces Black women's use of technology, from material tools to perform field labor and domestic work to oral and written devices used as tools for self-preservation and advocacy, to show that the development of technology cannot be separated from Black women and their interactions with it.

In chapter 2, "Black Feminist Technoculture, or the Virtual Beauty Shop," Steele introduces the idea of the virtual beauty shop to describe Black feminist technoculture as well as the relationship between Black women and technology. As a metaphor, the virtual beauty shop creates space to explore Black women's use of technology on its own terms, and within a context that is designed by and for Black women—just like Black beauty shops. Steele highlights the features, or technologies, of the virtual shop using a framework of hair care, entrepreneurs, and shoptalk. Through the use of this metaphor, Steele points directly to the rhetorical, entrepreneurial, and survival technologies used to move Black women to the center from the margins. Recognizing the relationships between Black women and technology creates space to consider the long and often complicated history of Black women's technology use, and the impact of digital technology on Black feminist discourse.

Chapter 3, "Principles for a Digital Black Feminism, or Blogging While Black," underscores the significance of the Black blogosphere and the possibilities it has created for Black