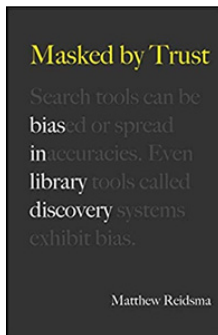


to be implemented. Those new to the profession will benefit from a cover-to-cover reading, while some may only need to read a chapter here and there to fill in gaps in their knowledge. It is laudable that Hodge has edited these many authors' works into a handbook that flows well for the reader. Inevitably there is minor overlap between chapters, limited mostly to the subjects of informal networking and online presence. This is essential reading for aspiring academic librarians, MLIS students with an undecided specialty, and those who mentor these individuals. —Ginger H. Williams, *Wichita State University*

**Matthew Reidsma.** *Masked by Trust: Bias in Library Discovery*. Sacramento, CA: Library Juice Press, 2019. 194p. Paper, \$28.00 (ISBN 978-1-63400-083-3). LCCN 2019010995.



In his book, *Masked by Trust: Bias in Library Discovery*, Reidsma addresses the increasing use and misplaced trust in search engines, and how library software developers have integrated Google-like elements into discovery systems. Since libraries license these systems, users believe that they are more reliable than web, or general purpose, search engines. However, the author asserts that, since library discovery systems are created by people with biases, they are not as neutral as vendors and libraries claim. Reidsma references several important researchers throughout the text, such as Safiya Umoja Noble, Cathy O'Neil, Carole Cadwalladr, and others, who have published works regarding algorithmic bias. These, in addition to his own research

into algorithms in library systems, help support the author's assertion that library systems are not immune from bias, thereby making the case that even library systems are not neutral.

The first chapter focuses on a lengthy but necessary discussion of algorithms. The author notes that engineers and the general public think of algorithms and their use differently and asks the question "how do you write an equation that allows a person to retain their dignity and humanity when you are trying to calculate the 'lowest valued customer'" (11). Reidsma mentions that search algorithms are difficult to analyze as they are proprietary, comparing them to black boxes. Other interesting sections of this chapter focus on social aspects of algorithms, the trust users put into them, that users are effectively "sold" that search algorithms are objective and neutral information-gathering tools, including the factors that go into the development of algorithms, as well as how they affect people. He discusses Noble's research on Dylan Roof's mass murder of nine black church attendees in Charleston, South Carolina, including Roof's citing of Google's search results that drove his decision, which is a disturbing sentiment. Reidsma ends the chapter with questions regarding the perceived objectivity of algorithms, as well as asking about the similarities and differences between search engines and library discovery systems, including if either of them warrant the "blind trust" applied to them by users (30).

Reidsma covers a lot of ground in the second chapter on search engines. He discusses why users put so much trust in search engines and rankings and how developers have implemented similar elements into library discovery systems. The author presents more valuable information presented by Noble regarding her own research on algorithms and biased results that the reader should pay close attention to, as well as Cadwalladr's research, which presents the question of ethical responsibilities that companies have regarding their responsibilities in addressing issues with their algorithms.

The third chapter centers on library discovery with a good explanation of the similarities and differences of library discovery systems and search engines. The author makes several

noteworthy points regarding the differences between the two, such as that library discovery systems are more stable than general purpose search engines, citing that the latter conducts experiments and changes their design and algorithms at will, whereas libraries have the ability to turn off unwanted features in licensed databases when vendors change or update their systems. Library discovery systems also don't try to "game" the system by using search engine optimization, or SEO, to get clicks or improve traffic to their website. Reidsma discusses the fact that services like Google depend on search histories to help drive advertising. A large portion of this chapter explains the research project he conducted with another librarian that involved analyzing auxiliary algorithms, specifically using the results generated by Summon's Topic Explorer and Research Starters. What he presents regarding the Topic Explorer part of the study is disturbing, as what was ingested into Summon from Wikipedia, for instance, is severely outdated, thereby delivering incorrect data to library users. Examples used to show inaccuracies include incorrect dates for Obama and Trump's terms in office and incorrect death dates for various public figures, stating that for a "library to offer a tool that is said to be trustworthy, and to have that tool showing such profound mistakes is a real problem" (78). As developers continue to neglect their own biases presenting systems as neutral, they are blatantly ignoring serious problems in their search tools.

The fourth chapter tackles bias specifically, mentioning that the values and biases of everyone involved in system development ultimately affects the product they are creating, as well as the people using the system. Reidsma discusses various aspects that "lead algorithms to show biased results" (93) and cites several instances where they do so to the detriment of certain underprivileged and overlooked populations.

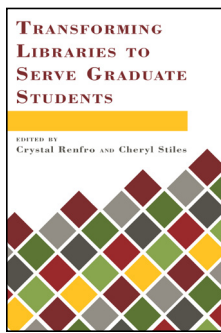
In chapter 5, "Bias in Library Discovery," Reidsma mentions that this topic is not the "latest example of bias in LIS practices" (117), providing examples of problematic headings in LCSH that shouldn't be new to librarians. Reidsma uses numerous examples illustrating the impact bias has on the results of searches in library discovery systems and presents his research on Summon, specifically the Topic Explorer, in terms of incorrect and often offensive results it yielded and, even more problematic, how the vendors addressed the issue when it was presented to them. The author analyzed search results in four different library discovery systems (Ex Libris' Summon and Primo, OCLC's WorldCat Discovery, and EBSCO's EDS), and what he found was unsurprisingly biased. When he presented his findings on Summon to Ex Libris, they responded by "either block[ing] the result (without investigating the underlying issues in the algorithm) or [choosing] to do nothing" (145). Essentially, Reidsma issues a call in this chapter for libraries to hold vendors and engineers accountable for their services that they are paying for.

The focus of chapter 6, "Moving Forward," addresses solutions for the future of library discovery systems. He suggests recognizing limitations of algorithms, stating that too much trust is put in them. Other recommendations he makes include a change in thinking from focusing on tools to an "information ecology"; conducting user tests that focus on the user, not the software; improving design methods; the need for libraries and software engineers to think more carefully and ethically about the tools they are creating and licensing; and teaching developers, librarians, and users. While Reidsma's suggestions for helping address bias sound good, this reviewer is dubious about its being completely erased in library discovery systems. We as humans cannot turn off our own assumptions and ideas, but one can hope that, with adequate education, all parties involved in the development and instruc-

tion of library discovery systems can make better decisions in creating and advocating for better systems.

The book would make a great addition to LIS coursework, specifically regarding ethics, and the topic is timely. Reidsma provides good definitions and writes in a fairly conversational tone, making the text accessible and easy to consume. Reidsma includes examples and explanations of the topic. Footnotes also provide good information and citations for readers. This book provided a lot of good information and has presented a case for further investigation into bias in library discovery systems.—Lizzy Walker, *Wichita State University*

***Transforming Libraries to Serve Graduate Students.*** Crystal Renfro and Cheryl Stiles, eds., for the Association of College and Research Libraries. Chicago, IL: American Library Association, 2018. 445p. Paper, \$88.00 (ISBN 978-0-8389-4606-0). LC Z711.92.G73 T73.



Graduate students are not a monolithic user population. A doctoral student in a faculty track has a very different trajectory from a master's student in a professional track. Graduate education also varies widely by academic discipline. Variation is inevitable when the groups you serve span the full range of scholarly knowledge. The editors of *Transforming Libraries to Serve Graduate Students* acknowledge that there is a great deal of variation between graduate students. Section 1 of the book explores the variation in information needs between graduate students. Chapters in Section 1 address the needs of art students, music students, students studying for health sciences professions, business students, social work students, STEM students, graduate student instructors, Latinx students, and online students. It is clear from the beginning that collaboration is important in serving graduate students because no one librarian will be able to handle all the specialized needs outlined in this book. However, it is valuable for us to understand what our colleagues are doing, and several of the chapters in the section also have implications across disciplines. Chapter 4, on serving music students, has something to offer many librarians across fields, as it relates the experiences of a librarian teaching a semester-long graduate course for the first time. Chapter 12, on serving STEM students, is also cross-cutting, as it addresses how to help students pursue grant funding, find and use data sets, and navigate questions of scholarly communication, all of which are needs felt across campus departments.

Section 2 of the book is about adapting library services for graduate students. It examines library spaces, LaTeX workshops, GIS training, online scholarly identity development, citation management instruction, and interlibrary loan services. Readers interested in disciplinary differences such as those outlined in Section 1 will also want to read the chapter on LaTeX instruction for STEM students, although the images provided in the chapter's appendix are not very readable. Readers may want to skip some of the chapters on adapting spaces and interlibrary loan, as multiple chapters are offered on those topics and they cover much of the same content. For example, the chapters on space share similar findings from graduate students desirous of quiet, security, and privacy in their study spaces.

Section 3 focuses on information literacy instruction for graduate students. Discussions of programs offering data services, data management instruction, information literacy, and creating online profiles are offered. Because Section 2 also addresses library instruction in several of its chapters, the content in Sections 2 and 3 blur together.