use of cooking-related language that is not descriptive of the individual scholarly communications programs. These relatively minor critiques may be helpful to be aware of, but certainly shouldn't deter anyone from consulting the book. However, those seeking in-depth discussions of and reflections on the concepts underpinning these recipes should look elsewhere, as this book's strength is in breadth rather than depth.

The Scholarly Communications Cookbook is a valuable resource for finding inspiration and for guidance on how to put ideas into action. This collection will be useful for academic librarians at any career stage and at any institution type and is informative for those seeking to expand their knowledge of scholarly communications beyond a narrower area of expertise. For example, as an OER librarian, I gained a useful overview of OA initiatives. The collection of recipes represents how librarians in a variety of academic library contexts are currently engaging themselves and their campuses with scholarly communications. Each recipe is licensed with a Creative Commons license, allowing readers to use and adapt the contents according to the terms of the specific license applied.—*Ariana Santiago, University of Houston*

Matthew Crain. *Profit over Privacy: How Surveillance Advertising Conquered the Internet.* Minneapolis, MN: University of Minnesota Press, 2021. 216p. Paperback, $25.00 (ISBN: 978-1-5179-0505-7).
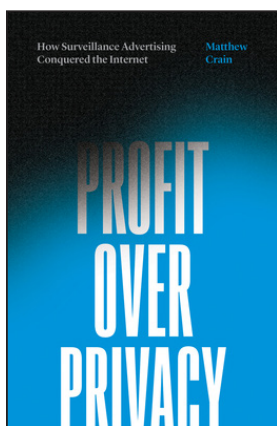
You exit an online store, leaving behind an item in your cart, only to receive a follow-up email encouraging you to reconsider. Later, after getting together with friends and chatting about their new wardrobe, you find your social media feed inundated with clothing ads directing you to purchase the same items that you were admiring on your friend. These are some of the visible ways that surveillance advertising plays out in our lives today. Such prevalent consumer monitoring and targeting was not always the norm, nor did the internet have to develop in this way, as Matthew Crain makes clear in this dense but readable text.

Using archival research, Crain's *Profit over Privacy* provides an in-depth analysis of the historical development of surveillance advertising, documenting how the surveillance advertising apparatus was constructed through concerted action and inaction by advertisers and marketers, tech start-ups, and government figures during the course of 25 years. In doing so, Crain provides an "origin story" (2) for the ubiquitous villain that is surveillance advertising. Crain shows how the development of targeted advertising built on incessant data collection was rooted in neoliberal free-market ideals and public-private "partnerships" that served to enshrine private industry power over public policy, normalize surveillance, and disempower the public.

The first two chapters cover Clinton's first and second terms, respectively. Crain documents the neoliberal turn within the Democratic Party through the lens of emerging internet policy, highlighting the Clinton administration's foundational role in the commercialization of the newly privatized internet. Clinton's unerring support for private sector leadership of technology policy offered tech companies immense access to shape policy in ways that would benefit those companies. This also laid the groundwork for what would become the surveillance advertising industry. Throughout the text, Crain uses the concepts of discursive capture and negative policy to highlight how policy alternatives that would have protected privacy rights were constructed by both government and industry figures as unrealistic and

anti-business. Such characterization was due to the neoliberal, pro-capitalist values espoused by those in power. Crain convincingly demonstrates how, contrary to the rhetoric that markets should be free of regulation, government intervention was critical to this period of capitalist internet development.

The third chapter focuses on the development of ad networks like DoubleClick during the early years of web advertising. The creation of the HTTP cookie and its widespread implementation signaled the end of the web as an anonymous space and the advent of surveillance advertising. The power of default settings is illustrated through a case study of an unsuccessful attempt to revise cookies' technical specifications: privacy advocates sought to change how cookies were delivered, from being turned on as the default with users allowed to opt out, to a proposed opt-in setting that would require user action to enable. (More recent changes to how users are informed about cookies are attributable not to changed technical specifications or US government action, but to the EU's General Data Protection Regulation [GDPR], which went into effect in 2018.)

Chapter 4 explores how the dot-com bubble allowed ad networks to grow quickly and massively thanks to a feedback loop between marketing and finance. Free from the "old economy" demands to be profitable, tech companies were able to rake in huge amounts of venture capital and public investment dollars, which they funneled into public relations and advertising that sought to further raise funds while building market share. In chapter 5, Crain shows how DoubleClick and other ad networks sought to achieve platform monopolies in the late dot-com period by establishing themselves as "web advertising's indispensable middleman" (97) between publishers and marketers.

Having grown big fast thanks to the dot-com bubble, DoubleClick was well positioned to expand its surveillance capacities through a merger with off-line data broker Abacus Direct. The massive threat to privacy that this merger represented is the subject of chapter 6. Crain shows how privacy activists used the more compelling issue of *children's* privacy rights to launch national debates on internet privacy. Ultimately, however, industry's successful capture of government and a change in White House administration shunted privacy to the wayside.

In a short conclusion, Crain discusses the rise of Google as its own platform monopoly, beginning with its early "don't be evil" days when it relied on relatively surveillance-free contextual advertising and continuing through its acquisition of DoubleClick and rapid transition into surveillance advertising. Returning to the critical role of public policy in the development of surveillance advertising, Crain concludes by emphasizing the importance of strong privacy laws and pointing to the EU's GDPR as a potential model.

The story of surveillance advertising is not an uplifting one. Crain's book highlights the tremendous structural and symbolic hurdles that privacy advocates face. However, understanding how things came to be the way they are is crucial to efforts to dismantle our current system of surveillance and build a new model of the internet that centers the public good. Positioned at the intersection of public policy and technology, this book should be of interest to a wide range of users in both fields, but especially those who are seeking to make critical change concerning privacy rights. Labyrinthine privacy policies that the average user does not read or understand are, as Crain shows, an accommodation by the marketing industry to deflate activists' demands for authentic privacy protection. (Omitted from the book but included on Crain's website is a tongue-in-cheek "privacy policy" that pokes fun at such policies.) In documenting the historical development of surveillance advertising, Crain makes a

forceful argument against the capitalist status quo and in favor of strong privacy laws. The book would benefit from an expanded discussion of the discriminatory and other societal effects of surveillance advertising, but Crain does a decent job of summarizing these issues. Overall, the text is succinct and relatively jargon-free, documenting a complex technical and political history in a clearly argued, understandable way.—*Julie Setele, University of Missouri, Columbia*

Audrey Watters. *Teaching Machines: The History of Personalized Learning.* Boston, MA: MIT Press, 2021. 328p. Hardcover, $34.95 (ISBN: 978-0262045698).
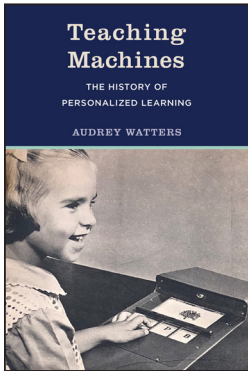
Books sometimes feel like a map, a way of orienting yourself to help you understand where you are. Or, in the case of *Teaching Machines: The History of Personalized Learning* by Audrey Watters, it's like going to therapy to unpack your family of origin's dysfunction, allowing you to reframe your childhood. This is the kind of work that makes your present circumstances more intelligible. This book is like all of that, but for educational technology.

I have been researching and writing about ed tech for years. While I've become familiar with the advertising techniques used to sell what amounts to surveillance software to use on students that triggers a scramble within education to understand whether and how we should use them, the landscape of ed tech can still be difficult to understand with any critical distance. Watters provides this perspective by taking the reader through significant developments in "automated teaching" that span from the 1920s through the 1970s. The history of ed tech becomes a fantastic lens through which to view our present. While most education technologists are either unaware of their own history or proudly ignore it, Watters relentlessly demonstrates that some of the shiniest claims to ed tech magic aren't new. The marketers of educational technologies have always struggled to show evidence that these systems do what they claim.

The Silicon Valley method paints education as a fossilized copy of the Prussian factory model of classrooms right up until when Sal Khan invented the MOOC and saved education itself. The real story is more complicated and filled with unsavory actors. Watters digs into several archives to show how behaviorism, a psychological theory most famously espoused by B.F. Skinner, is embedded in how the technology sector promotes things like social engineering, nudging, and other strategies that shape how people interact with technologies. Tech companies use behavioristic tools to drive more engagement with technology that are ultimately monetized: think of the tactics social media platforms use like notifications or infinite scrolling—and Watters connects the dots for how this practice first began. As someone who already disliked B.F. Skinner, this book was delicious, offering new reasons to hate him with much more depth and nuance. His casual sexism, including taking credit for the work of his graduate student, Susan Meyer, feel prescient of ongoing sexism within tech and academia. Skinner also didn't mind causing collateral damage to Black students in impoverished schools whom he tried to enlist as trial populations for intelligence testing and programs to increase reading, regardless of the human cost. He makes a compelling villain.

The book contextualizes teaching machines alongside other educational technologies like typewriters, movies, textbooks, radios, and chalkboards. Watters' broad definition of educational technology rightly undercuts the unearned mystique of what contemporary actors trumpet as innovation.