

## REVIEW

*Algorithms of Oppression: How Search Engines Reinforce Racism* by Safiya Umoja Noble (New York University Press, 2018)

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Search engines, a primary gateway to the web, are retrieval mechanisms to the lay user. When one conducts a search, one relies on internal rulesets or formulas for action (algorithms) to retrieve context-specific information. The most popular retrieval service is not just a search engine, but a brand, browser, verb, Internet service provider, and hardware producer and distributor. In terms of information retrieval, no other tech company has made its name synonymous with the act of searching and, inversely, made itself the most desirable location for featured (and paid) web content. Its pervasive presence and foregrounding of ranked relevance makes it seem infallible, omniscient, and apolitical.

These semblances are only imagined. The visually minimalist clarity of Google.com is a stark contrast against the over 200 factors that go into search rankings. When one searches, the top results are ranked by “relevance” by default, determined by whether the site has paid to be

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a top result, what others have chosen based on the same search terms, and one's own search history. That these processes seem automatic or universal does not render the results "objective" or mitigate sociopolitical bias.

This is the foundation for Safiya Umoja Noble's argument in *Algorithms of Oppression*, which employs a Black feminist perspective to analyze the organization and retrieval of information. Her story begins with a simple desire to buy a present for her niece. When she Googled "black girls," she found pornography instead of gift suggestions. (Note: since her "black girls" search, Google has tweaked its rulesets, making it impossible to replicate her findings.) This search launched a more serious inquiry into ranked relevance, commercialized search engines, and how information scholars can contribute to fair, inclusive classification systems.

From a quantitative standpoint, it might make sense that pornography was a first-page result as, over the past few decades, the production, publication, and consumption of pornography has skyrocketed. The more people consume, the more "relevant" the connection becomes between a search term and a website. But this is exactly part of the problem: the demand for and money behind certain sites pushes others to the margins. Citing Elad Segev's work on Google and global inequality, Noble attributes collectivist accounting as a kind of "social hegemony." She shows how ranking practices reify dominant ideologies, regardless of how an individual searches or what they seek.

Noble's reminder that Google is a commercial enterprise, not a public service, is significant. Collecting a fee to feature one's work on the front page creates an imbalance in whose voices and views are displayed. Beyond the epistemological or ontological inequity embroiled in digital capitalism, argued throughout as having particularly harmful effects on women of color, Noble draws a connection between search engine results and physical violence in her chapter "Searching for People and Communities." In this chapter, she includes a part of a racist manifesto penned by the author before he massacred nine people on 17

June 2015. In the excerpt Noble provides, the author explains that he was baffled at the criticism George Zimmerman received after killing Trayvon Martin in 2012. He conducted a search for “black on white” crime and “the first website I came to was the Council of Conservative Citizens.” He read “pages upon pages” and was “in disbelief” that “hundreds” of black on white murders were being “ignored.” The author attributes being “completely racially aware” to his Google-facilitated research (p.111).

At face value, the line between a search query and the murders of Rev. Clementa Pinckney, Cynthia Hurd, Tywanza Sanders, Rev. Sharonda Singleton, Myra Thompson, Ethel Lance, Susie Jackson, Rev. Daniel Simmons Sr., and Rev. DePayne Middleton Doctor is tenuous. However, Noble’s point that the murderer’s primary source of information was *paid* to be the first website seen clearly stands. Google is a business and advertising is one revenue stream. For this reason, she argues, it is imperative to rethink public policy in relation to information, and the ideologically reflexive nature of commercialized search.

Noble looks to the engineering teams themselves to isolate which ideologies are being sustained and reinforced. She cites a 2016 statistic stating that the Google staffed 2% African American employees and 3% Latino, with the bulk being Asian and White (p. 163). Engineers building search infrastructure can carry and manifest bias in their work. Noble’s example of the search engine architect fired for his viral “antidiversity” manifesto supports the claim that engineers can recreate and reinforce existing power structures. Noble thus identifies systemic problems and ties them to individuals who can be held accountable.

Her work builds to a three-pronged approach built on the same premise: If these structures can be built and ideologically imbued, they can be re-built. First, designers must admit classification schemes reify bias and that policies of neutrality only exacerbate the problem. Next, she brings up the case for public policy and regulation. While some regulatory policies for information access and organization exist, many are outdated, unenforced, or too narrow. Google, she writes, holds a monopoly on information; in most other arenas, a monopoly this large would elicit

public skepticism.

This leads to her last call to action: Scholars in library and information science studies must “actively intervene in the default normativity of racism and sexism in information resources” (p. 136). As relayed in her section dedicated to the topic, library and information science scholars have long recognized power imbalances emerging from classification systems. “This should be a wake-up call,” she writes, “for people living in the margins, and people aligned with them, to engage in thinking through the interventions we need” (p. 169). Should such scholars employ feminist and critical race approaches, they could make significant strides to improve or provide noncommercial strategies for archiving, representing, and retrieving information for and about marginalized populations (p. 138). Noble presents a pervasive problem but also demonstrates optimism that better alternatives are possible.

This faith does not go untested. The book’s epilogue begins with Donald Trump winning the 2016 presidential election. With regard to her argument for noncommercial search alternatives and the reining in of oppressive data architecture, she writes: “I would be remiss if I did not acknowledge, on the eve of the publication of this book, that [these suggestions] may not be viable at all given the current policy environment that is unfolding” (p. 185).

Yet, the inherent power of information architecture is increasingly clear to the general public. Critiques of disinformation and other high-profile issues that have come to light since the book’s publication (e.g., weaponized social media and the repeal of net neutrality), which could have significant consequences for low-income schools with aging hardware, give new examples for several claims made in this book. We know change is possible, given Google’s fix to the “black girls” search results. Perhaps this political context can motivate the groups Noble calls upon to provide clear and actionable strategies. After all, I concur: Society is searching for them.

## Bio

**Linzi Juliano** is a continuing lecturer at the University of California, Los Angeles and senior researcher at the Geena Davis Institute for Women in Media.