BOOK REVIEW

Do/Can/Should Legal Practitioners Rely on Google Search?

Algorithms of Oppression: How Search Engines Reinforce Racism
Safiya Umoja Noble (2018), 211 pages

Cindy Thomas Archer, rev'r*

With the recent focus on generative AI—using large language models to generate "original" content—it's easy to forget that we have been relying on artificial intelligence in its broadest application for decades in the form of extractive AI. Our reliance on extractive AI, through search engines like Google and specialized legal research databases, has become so ubiquitous that we do not think of it as artificial intelligence. More importantly, we do not often question the results.[1] Dr. Safiya Noble's groundbreaking work, *Algorithms of Oppression*, gives us a framework to be more critical of those results.

Published in 2018, *Algorithms of Oppression* is the result of Dr. Noble's[2] multiyear study of the biased results produced by commercial search engines. The book's main premise is that while we have come to accept that search engines will return results consistent with stereotypes, we focus on only one cause: prejudiced users who input biased data. But

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1 Safiya Umoja Noble, Algorithms of Oppression 38 (2018) (citing John M. Simpson, *Traffic Report: How Google Is Squeezing Out Competitors and Muscling into New Markets*, Consumer Watchdog (June 2, 2010), https:// www.consumerwatchdog.org); *Id.* at 53 (citing Kristen Purcell, Joanna Brenner & Lee Rainie, *Search Engine Use 2012*, Pew Rsch. Ctr. (Mar. 9, 2012), https://www.pewresearch.org/internet/wp-content/uploads/sites/9/media/Files/Reports/2012/PIP_Search_Engine_Use_2012.pdf) (noting that a 2012 study revealed that "73% of search engine users say that most or all the information they find as they use search engines is accurate and trustworthy").

2 Dr. Safiya Noble is the Sears Presidential Endowed Chair of Social Sciences and Professor of Gender Studies, African American Studies, and Information Studies at UCLA, Director of the Center on Race & Digital Justice, and Co-Director of the Minderoo Initiative on Tech & Power at the UCLA Center for Critical Internet Inquiry (C2i2). She is also Interim Director of the UCLA DataX Initiative, leading work in critical data studies. In 2021, she was recognized as a MacArthur Foundation Fellow for her groundbreaking work on algorithmic discrimination.

this is only half of the story. It's not just the data but *the algorithms themselves that facilitate the biased results*.

Algorithms of Oppression encourages readers to adopt a more critical lens when using search engines. Dr. Noble's work easily extends to the bias of algorithms in large language models that generate content as well. As she cautions, "The near-ubiquitous use of algorithmically driven software, both visible and invisible to everyday people, demands a closer inspection of what values are prioritized in such automated decision-making systems."[3] We cannot let anticipated efficiencies and profitability distract us from the profound ethical and societal consequences at stake when we rely on these technologies.

Overview of *Algorithms of Oppression*

After more than a decade in multicultural marketing, advertising, and public relations, Dr. Noble earned an M.A. and Ph.D. in library and information science. Her research on Google search functions from 2010–2016 revealed that its algorithms frequently generated autosuggestions and returned search results that were racist, misogynistic, homophobic and xenophobic. But the algorithms didn't just return this content because the majority of platform users were sexist, racist, homophobic, or xenophobic. Instead, numerous complex factors impacted these biased results, including 1) the impact of programmers' values on the algorithms they created; 2) the data sets Google *chose* to reflect in its algorithms; 3) the ability of Google's customers to pay to gain advantageous priority in ranking results; and 4) public apathy toward the veracity of results.

Algorithms of Oppression does not merely chronicle troubling search results. Rather, Dr. Noble uses her knowledge from a professional career in multicultural marketing and advertising to inform her current role as scholar and Professor of Information Studies. That background allows her to explain clearly and directly the impact of the "commodification of information"[4] helping users to see Google as a marketing platform that is profit-driven and not necessarily incentivized to ethically curate the information on which the public relies. *The importance of Dr. Noble's work is its focus on dispelling the belief that the algorithms, and more importantly their creators, are neutral.*

With her clear—and often shocking—examples, Dr. Noble helps readers understand how advertisers use Google's search engine

3 Noble, *supra* note 1, at 1.

4 *Id.* at 92.

optimization tools, like AdWords and PageRank, to manipulate ranking results in addition to paid sponsorships which entitle *any* advertiser to have their ad displayed in response to specific search terms.[5] For example, in response to Dr. Noble's search for "black girls" on Google, the search engine returned pornography websites, not because girls of African descent are more likely than others to be a part of the pornography industry, but because pornography website advertisers tied their site to the term "black girls."[6] And while users can just move on to the next listing in the results, as Dr. Noble reflects, connecting "black girls" and "pornography" on a search platform that most people approach as information and not advertising has significant impact on a society that is constantly searching.

Another early example is notable. *Algorithms of Oppression* begins by describing a 2013 UN advertising campaign targeting the "sexist and discriminatory way in which women are regarded and denied human rights."[7] The UN ad included pictures of women of color with the text of "autosuggestions" that reflected some of the most popular Google searches about women. For example,

- [User search bar input] "Women cannot": [algorithmically determined search bar autosuggestions] "drive, be bishops, be trusted, speak in church"
- [User search bar input] "Women should not": [algorithmically determined search bar autosuggestions] "have rights, vote, work, box"
- [User search bar input] "Woman should": [algorithmically determined search bar autosuggestions] stay at home, be slaves, be in the kitchen, not speak in church"
- [User search bar input] "Women need to": [algorithmically determined search bar autosuggestions] "be put in their places, know their place, be controlled, be disciplined" [8]

Dr. Noble critiques this campaign for directing blame at users and for suggesting that "search is [merely] a mirror of users' beliefs and that society still holds a variety of sexist ideas about women."[9] She argues that such an approach "reinforces the idea that it is not the search engine that

5 *See id.* at 47 (explaining search engine optimization).

6 *See id.* at 68, 86–87.

7 *Id.* at 15.

8 *Id.* at 15–16 (citing *UN Women Ad Series Reveals Widespread Sexism*, UN Women (Oct. 21, 2013), https://www.unwomen.org/en/news/stories/2013/10/women-should-ads).

9 *Id.* at 15.

is the problem but, rather, the users of search engines . . . ."[10] While Google subsequently adjusted its algorithms "to include more diverse and less sexualized images of Black girls in its image search results,"[11] this does not mean the work reflected in *Algorithms of Oppression* is no longer salient. Rather, it reflects the continued need for researchers and readers to remain vigilant.[12]

Although *Algorithms of Oppression* focuses on how the algorithms themselves facilitate biased results, Dr. Noble does not ignore biased user input. Often in discussions about AI and bias, the conversation turns to the difference between *biased data* and *unbiased data* and the admonition to use *unbiased data* if we want our results to be unbiased. But as many scholars have observed, raw unbiased data is an oxymoron—data does not exist as an independent entity in the universe; there are always choices attached.[13] Accordingly, despite the belief that the data is solely based on user input, Dr. Noble explains how Google engages in data manipulation. *Algorithms of Oppression* also cites to interviews with "commercial content moderators" who reveal that cultural world views undergird the decisionmaking process behind what user data to keep and what to delete.[14] In highlighting content moderation, Dr. Noble interrogates the impact of the homogeneous culture of tech communities and how the values of algorithm developers are also reflected in the biased search results.[15]

Finally, Dr. Noble considers the future of information culture, specifically who controls knowledge in the public sphere. She advocates for the creation of more noncommercial search engines whose purpose is information access, not advertising. She pays particular attention to the role of information system professionals in challenging the hierarchies that manifest the algorithmic oppression advocating for better cultural competency education in their training. And Dr. Noble reflects on the broader public policy undergirding online information systems. She specifically calls for greater government regulation to balance the fact that much of the information the public consumes is controlled by corporate entities.

10 *Id.*

11 *Id.* at 104.

12 *Cf.* Lorena O'Neil, *These Women Tried to Warn Us about AI*, Rolling Stone (Aug. 12, 2023), https://www.rollingstone.com/culture/culture-features/women-warnings-ai-danger-risk-before-chatgpt-1234804367/.

13 *See, e.g.*, Geoffrey C. Bowker, Memory Practices in the Sciences 184 (2005) ("Raw data is both an oxymoron and a bad idea; to the contrary, data should be cooked with care.").

14 Noble, *supra* note 1, at 57.

15 *Id.* at 66; *see also* Susan Nevelow Mart, *The Algorithm as a Human Artifact: Implications for Legal [Re]Search*, 109 Law Libr. J. 387, 389 (2017).

Lawyer engagement with biased algorithms

While lawyers likely engage AI at least as often as others, their use has the potential to influence how they view other lawyers and prospective clients. Lawyers google for "free" legal research, fact-based investigations, and even background checks.[16] Because of a lawyer's ethical duties and the moral implications of their decisions, lawyers should cautiously interrogate the methodology of search algorithms before relying on the information they produce. The research in *Algorithms of Oppression* can provide an initial foundation for discovering the minefields in algorithmically supported research.

"Free" legal research is not free (of biases)

Engaging in free legal research on publicly available platforms, like Google, has consistently been an important cost savings measure, and some even argue that it is a necessary step for competent research.[17] Even simple "find" searches on online commercial legal databases, like Lexis, Westlaw, and Bloomberg (collectively "Commercial Legal Databases") are costly. Further, for some lawyers, especially Gen Z and other Digital Natives,[18] "googling"[19] is as natural as breathing. Thus, there is a level of comfort for young lawyers with Google and Google-like searches that they may not have with Commercial Legal Databases. The choice between an initial search on Google and completing as much of the search as possible on Google can be an even more significant issue for under-resourced law firms and legal departments that are unable to use Commercial Legal Databases for every search.

But free does not mean without risk. Using Google for a simple "find" search for a statute or code section will generally get a lawyer to the government website that has responsibility for that statute somewhere in the list of results, but as *Algorithms of Oppression* explains, the list of results is not necessarily ranked by legal relevance. Insight into how Google's algorithms prioritize results would help a lawyer verify validity, but that proprietary information is not available. Further, because

16 Michael Thomas Murphy, *The Search for Clarity in an Attorney's Duty to Google*, 18 Legal Comm. & Rhetoric 133, 135 (2021) (discussing the "Duty to Google" "as a logical extension of an attorney's duty of fact investigation").

17 Ellie Margolis, *Surfin' Safari—Why Competent Lawyers Should Research on the Web*, 10 Yale J. L. & Tech. 82, 119 (2007) (concluding that lawyers "should understand that legal research involves a review of relevant online resources").

18 A Digital Native is a person born or brought up during the age of technology and therefore familiar with computers and the internet from an early age.

19 Wikipedia notes the neologism commonly refers to searching for information on the World Wide Web, typically using the Google search engine. *Google (verb)*, Wikipedia, https://en.wikipedia.org/wiki/Google_(verb) (last modified May 24, 2025, 12:04 p.m.).

Google's target audience is not limited to lawyers, the search results include many types of sources: government websites, student videos, news articles, advocacy organization's newsletters, again, not necessarily ranked by relevance.

There are even more challenges for lawyers relying on Google to *explain legal concepts*, not merely googling to "find" a statute. Recently, I wanted to refamiliarize myself with updates to the Erie Doctrine. I could have gotten up from my desk to find a text on my bookshelf. I could have done a search on a Commercial Legal Research platform for *Erie Railroad Co. v. Tompkins*, 304 U.S. 64 (1938). I did not want the holding in *Erie* but instead a general understanding of its current application; I decided to google it. The first cite to the left of the screen was an AI generated summary; to the right was a Wikipedia explanation. Below in the results list was a Reddit post with comments about the Erie Doctrine. The actual case was fifth in the list of results. The next results were two YouTube videos, one by a law professor and one by a law student. I redid the search two days later and some results in the list had shifted in priority. Reading *Algorithms of Oppression* helped me understand why. Sometimes the ranking of results is based on "voting"—a result prioritization concept based on consumer use.[20] Sometimes it's the prioritization of paid advertisements or the fact Google owns YouTube so its videos get prioritized.[21] The most helpful result could have been on the tenth page, if I ever got there.

"Non-legal" use of search platforms

For some lawyers, the thought of relying solely on Google to do legal research is inconceivable, but the thought of using it for fact-based research is consistent with good lawyering. Some people in the legal community have even posited that running a Google search is part of a lawyer's due diligence and cite to case law supporting that position.[22] Even if lawyers do not use Google for any traditional investigation on client matters, per se, they use it to get background information on other lawyers, judges they will appear before, and private adjudicators like mediation and arbitration services. Finally, some lawyers use Google as part of their background research in hiring decisions for staff and even other lawyers. It is in this area that *Algorithms of Oppression* can have

20 Noble, *supra* note 1, at 37 (the term "voting" describes "how search results move up or down in a ranked list of websites").

21 *Id.* at 56.

22 Carole A. Levitt & Mark E. Rosch, Google for Lawyers xxiii (2010).

some of the most significant impact by helping lawyers to better evaluate the algorithmically-generated results.

One of the most important lessons from *Algorithms of Oppression* is that Google is first and foremost an advertising platform. For example, in choosing mediation services, many of the results that appear first in Google's results list are there because mediators have paid for the right to be prioritized, not because they have any special training or talent. In addition, other entities have used the algorithm's marketing capabilities to their advantage and purchased the domain names of competitors to gain advantage in the market. Finally, Google users should be aware that reviews and other comments are not regulated in ways that necessarily get at the truth a lawyer seeks.

Perhaps even more importantly, *Algorithms of Oppression* demonstrates how using Google to research individuals from underrepresented and marginalized groups could easily result in misrepresentation and stereotypes. Current research continues to support Dr. Noble's findings that the algorithms are biased, meaning they reflect the values of the programmers. As recent as 2023, the Pew Research Center analyzed image samples from Google Image Search depicting men and women working in common jobs. The study found that in the majority of jobs examined, women were underrepresented in online images relative to their actual participation rates in those jobs based on Bureau of Labor Statistics data. And when women appeared, they appeared lower in the search results.[23] So, lawyers who use Google for background searches on individuals should be aware of how the algorithms display, prioritize, and otherwise produce results about people.

Ethical implications: Unregulated source of information

As the final chapters of *Algorithms of Oppression* describe, private search engines like Google are a bit of an unregulated "wild west." And the Google database is not organized like a card-catalogue whose system, although challenging (and even biased),[24] is clearly defined and public. Even though Google algorithms are largely unregulated, lawyers are. Accordingly, relying on Google searches without questioning the methods and goals supporting the results could result in a potential violation of a lawyer's duty of competence. Beyond the "the legal knowledge, skill . . . and

23 Onyi Lam, Brian Broderick, Stefan Wojcik & Adam Hughes, *Gender and Jobs in Online Image Searches,* Pew Rsch. Ctr. (Dec. 17, 2018), https://www.pewresearch.org/social-trends/2018/12/17/gender-and-jobs-in-online-image-searches/.

24 Noble, *supra* note 1, at 24, 136–37.

preparation reasonably necessary for the representation,"[25] competence requires a lawyer to "keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology . . . ."[26] Because a lawyer's expertise is primarily their legal knowledge, lawyers can incorrectly place the burden of understanding the technology they use for research on others, e.g., computer technicians or library professionals. But the lawyer's duty to be competent includes the lawyer understanding the risks associated with the technology they are using.[27]

Because Google and other platforms claim the exact nature of their algorithms are proprietary, no one is privy to the mathematical formulas Google uses to support its searches. *Algorithms of Oppression* and similar texts, however, can help a lawyer to use a more critical lens when relying on the results and at the very least to determine if further research is necessary. Moreover, if googling continues to be a primary source of legal research, then maybe it is time for lawyers to join movements to enact broader regulations for commercial online search platforms/advertising sites like Google, like many of those suggested in the final chapters of *Algorithms of Oppression*.

Conclusion

Whether googling or prompting, any lawyer who uses extractive or generative artificial intelligence should read *Algorithms of Oppression*. We can only fully understand the results of our research when we dig deeper into how those results are produced. And if we cannot fully comprehend the algorithms that produce the results, we can at least be more knowledgeable about the motives and goals of the people who created or own them. Through concrete examples from Dr. Noble's extensive research and other experts, *Algorithms of Oppression* opens a window into, not all, but some of the more insidious problems with googling like the bias, stereotyping, and discrimination its algorithms facilitate.

25 Model Rules of Pro. Conduct, r. 1.1 (Am. Bar Ass'n 2020).

26 *Id.*, cmt. 8.

27 ABA Comm. on Ethics & Pro. Resp., Formal Op. 512, 4 (July 29, 2024), https://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/ethics-opinions/aba-formal-opinion-512.pdf ("While GAI tools may be able to significantly assist lawyers in serving clients, they cannot replace the judgment and experience necessary for lawyers to competently advise clients about their legal matters or to craft the legal documents or arguments required to carry out representation.").