

**The New Invisible Hand?
The Impact of Algorithms on Competition and Consumer Rights**

Before the Senate Judiciary Committee
Subcommittee on Competition Policy, Antitrust, and Consumer Rights

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In response to a letter dated December 20, 2023 from Senator Richard Durbin (D-IL) following my Senate Testimony¹ at a hearing held on December 13, 2023 entitled “*The New Invisible Hand? The Impact of Algorithms on Competition and Consumer Rights*,”² I am writing to provide answers in response to questions for the record from Committee members of the Senate Judiciary Committee.

Question from Senator Thom Tillis

1. The AMERICA Act would prohibit large digital advertising companies from owning more than one part of the digital ad ecosystem. In your opinion, should this take effect today [or] do you see any unintended consequences.

Answer from Professor Roger Alford

In my opinion the AMERICA Act should take effect as soon as possible to address the urgent problem of Google’s abuse of monopoly power in the digital online advertising.³ As I have testified before,⁴ according to the Department of Justice, “website publishers in the United States sell more than five trillion digital display advertisements on the open web each year—or more than thirteen billion advertisements every day. To put these numbers in perspective, the daily volume of digital display advertisements grossly outnumbers (by several multiples) the average number of stocks traded each day on the New York Stock Exchange.”⁵ We live in an age of attention markets, with attention brokers earning billions in revenue from trading in the scarce commodity of our time. While in the 1970s, the average American saw between 500 and 1600 ads per day, today we encounter an estimated 6,000 and 10,000 ads per day.⁶

¹ *The New Invisible Hand? The Impact of Algorithms on Competition and Consumer Rights: Hearing Before the Subcomm. on Competition Policy, Antitrust, and Consumer Rights of the S. Comm. on the Judiciary*, 118th Cong. (2023) (statement of Roger P. Alford, Professor of Law, Notre Dame Law School).

² *Id.*

³ AMERICA Act, S. 1073, 118th Cong. (2023).

⁴ *Competition in the Digital Advertising Ecosystem: Hearing Before the Subcomm. on Competition Policy, Antitrust, and Consumer Rights of the S. Comm. on the Judiciary*, 118th Cong. (2023) (statement of Roger P. Alford, Professor of Law, Notre Dame Law School).

⁵ Complaint at ¶ 2, *United States et al. v. Google LLC*, 1:23-CV-00108 (E.D. Va. Jan. 24, 2023) [hereinafter DOJ Complaint].

⁶ Emilia Kirk, *The Attention Economy: Standing Out Among the Noise*, FORBES (Mar. 23, 2022, 7:15am),

<https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2022/03/23/the-attention-economy-standing-out-among-the->

The volumes of ads are not the only aspect of display advertising that are enormous. The margins are also staggering. While the NYSE makes less than 1 percent (or less than \$5.00) on a \$100,000 stock trade, Google intermediaries make approximately forty percent (or \$40,000) on a \$100,000 ad campaign. With such enormous volumes and margins, it is not surprising that Google has a market cap of approximately \$1.85 trillion, and revenue of approximately \$280 billion per year, which amounts to \$767 million per day, or \$32 million per hour.

Online display advertising is almost a completely unregulated market, with neither litigation nor legislation curbing the opportunities for the abuse of market power. Unlike the financial markets, which are subject to significant regulatory oversight and litigation risk, the online display advertising markets have no laws that impose best interest duties on market actors or curb perverse practices such as insider trading or front running. Nearly identical practices that in financial markets would result in severe fines, and even criminal sanctions, are completely unregulated in the online display market.

The AMERICA Act prohibits entities with significant digital advertising revenue from owning and operating entities across the ad tech stack. In essence, large digital advertising companies with over \$20 billion in ad tech revenue must make a choice regarding which segment of the ad tech stack they would like to operate. They can either be a buyer or seller of digital advertising space, they can own a digital advertising exchange, they can own a sell-side brokerage, or they can own a buy-side brokerage. This is surest way to avoid conflicts of interest, promote transparency, and restore competition in the digital ad tech markets.

In the digital ad tech market, there are several advantages to structural separation of the ad tech markets. First, structural separation of dominant market actors with the power and incentive to foreclose competition recognizes the limits of regulatory behavioral obligations that are difficult to devise, implement, monitor, and enforce. Second, structural separation of dominant market actors eliminates or minimizes the conflicts of interest that are endemic in the ad tech market. Third, structural separation eliminates or reduces the risk of dominant market actors' cross-subsidizing and steering from less or non-competitive segments to competitive segments of the ad tech stack. Fourth, structural separation improves transparency and information flows across the ad tech stack, enhancing consumer choice, new entry, and the competitive process. Fifth, structural separation, unlike behavioral commitments, eliminates or reduces dominant market actors' incentives to restrict competition. Sixth, regulatory structural separation of dominant market actors may be faster, more effective, less expensive, and more pro-competitive than a similar remedy pursued through antitrust litigation, particularly when combined with regulatory behavioral obligations on other competitors.

[noise/?sh=4201368e7fda](#); Mark Melvin, *How Brands Can Use Relevant Moments and Technology to Engage with Consumers*, ADVERTISING WEEK (Nov. 16, 2021), <https://advertisingweek.com/how-brands-can-use-relevant-moments-and-technology-to-engage-with-consumers/>; *History: 1970s*, ADAGE (Sept. 15, 2003), <https://adage.com/article/adage-encyclopedia/history-1970s/98703>.

Question from Senator Thom Tillis

2. Development of AI will only continue to grow and as a result more and more sophisticated AI tools will become available and the use of AI tool more prevalent. What can Congress do now to better to plan for the impact on competition, without stifling AI innovation?

Answer from Professor Roger Alford

The emergence of artificial intelligence offers significant opportunities for innovation, but also presents genuine risks. As discussed at the hearing, Congress can leverage current enforcement mechanisms at its disposal to address competition concerns regarding the development of artificial intelligence. Existing antitrust laws provide a starting point to ensure that mergers in these emerging markets are not anticompetitive, that companies do not abuse their monopoly power in these and adjacent markets to harm consumers, and that Big Tech companies do not cooperate in a manner that rises to the level of unlawful collusion.

In particular, Big Tech companies have natural advantages with respect to AI because of their strength with the essential inputs of data, talent, and storage. AI is only as good as the data it is trained on, and the data information limitations create insurmountable barriers to entry for many companies. Big Tech companies have data advantages that new entrants cannot rival, and they can utilize existing proprietary data collection tools and technologies for acquiring data.⁷ Big Tech companies also have existing labor expertise that will be critical for AI development, and many new entrants will find that the scarcity of engineers and other professionals will make it difficult to effectively compete. Enforcement against illegal no-poach agreements and anticompetitive non-compete clauses will be an important element in the success of new entrants.⁸ Finally, cloud storage and computational resources are necessary for the successful training and deployment of AI products and incumbents in those markets have significant advantages as compared to new entrants.⁹ Congress should encourage government enforcement agencies to closely monitor emerging AI technologies to ensure that they promote competition and do not violate antitrust laws.

The Biden Administration has issued an Executive Order calling for the passage of a bipartisan data privacy law to protect consumers against the risk of extracting, identifying, and exploiting personal data.¹⁰ Senators have introduced privacy legislation in the previous and current Congresses,¹¹ but given the lobbying power of Big Tech thus far those bills have failed. As we all know, Big Tech lobbyists spent over \$275 million opposing privacy and antitrust bills in the last Congress, and as a result these bills never made it to the floor for a vote.¹² Notwithstanding these

⁷ *Generative AI Raises Competition Concerns*, FEDERAL TRADE COMMISSION TECHNOLOGY BLOG (June 29, 2023), <https://www.ftc.gov/policy/advocacy-research/tech-at-ftc/2023/06/generative-ai-raises-competition-concerns>.

⁸ *Id.*

⁹ *Id.*

¹⁰ Exec. Order No. 14110, 88 Fed. Reg. 75191 (Oct. 30, 2023); *The New Invisible Hand? The Impact of Algorithms on Competition and Consumer Rights: Hearing Before the Subcomm. on Competition Policy, Antitrust, and Consumer Rights of the S. Comm. on the Judiciary*, 118th Cong. (2023) (statement of Dr. Sarah West, Managing Director, AI Now Institute).

¹¹ Social Media Privacy Protection and Consumer Rights Act of 2021, S. 1667, 117th Cong. (2021); UPHOLD Privacy Act 2023, S.631, 118th Cong. (2023).

¹² David Dayen, *How Chuck Schumer Deep-Sixed the Tech Antitrust Bills*, THE AMERICAN PROSPECT (Jan. 26, 2023), <https://prospect.org/power/2023-01-26-chuck-schumer-tech-antitrust-bills/>; Rebecca Klar & Karl Evers-Hillstrom, *How Big Tech Fought Antitrust Reform—and Won*, THE HILL (Dec. 23, 2022 6:00 AM), <https://thehill.com/policy/technology/3785894-how-big-techfought-antitrust-reform-and-won/>; Eric Cortellessa, *Schumer Kills Bills Big Tech Feared Most, But Boosts Budgets of Agencies Targeting Them*, TIME (Dec. 22,

hurdles, Congress should actively explore legislative measures that address privacy and competition concerns in emerging AI technology markets.

Question from Senator Thom Tillis

3. Can algorithms be manipulated by bad actors to censor free speech, specifically during an election cycle? And if so, how?

Answer from Professor Roger Alford

Yes of course. The concerns regarding algorithmic manipulation by bad actors to censor free speech are well-founded. Both international and domestic actors harness the power of algorithms to censor free speech, including censorship during an election cycle.

For example, people routinely use social media to obtain news and information. Social media companies historically have used “ex-post moderation” to address content that breaches platform rules or laws.¹³ Ex-post moderation, however, cannot keep pace with large amounts of data and reporting, and often cannot distinguish between harmful content and permissive speech. As a result, many companies now rely on algorithms to help moderate content prophylactically through “ex-ante moderation.”¹⁴ In the context of government actors working in cooperation with private companies to censor speech we might call digital prior restraints.¹⁵

Election interference is pervasive on social media platforms. According to Mark Zuckerberg, Facebook blocks millions of fake accounts every day, and often those accounts are designed to influence elections.¹⁶ Social media platforms also censor misinformation shared on real accounts and may do so by flagging, blocking, or prohibiting virality.¹⁷ Social media platforms decide, or delegate to their chosen agents, precisely what constitutes misinformation. In many instances there will be broad consensus on what constitutes misinformation, but in other instances the type of information worthy of censorship will be contested and controversial.¹⁸ The use of algorithmic censorship obscures the inherently fallible nature of the automated decisions, allowing platforms to hide behind the veil of complexity regarding what content is appropriate for moderation.¹⁹ In practice, social media platforms use algorithms to become the arbiters of what is permissible speech.

2022 3:24 PM), <https://time.com/6243256/schumer-kills-antitrust-big-tech-bills/>; Mike Tanglis, *Lobby, Donate, Hire, Repeat: How Big Tech is Using the Inside Game to Slow Down Antitrust Reform*, PUBLIC CITIZEN (Dec. 16, 2022), <https://www.citizen.org/wp-content/uploads/Lobby-Donate-Hire-Repeat.pdf>.

¹³ See generally Jennifer Cobbe, *Algorithmic Censorship by Social Platforms: Power and Resistance*, 43 PHIL. & TECHNOLOGY 739 (2021), accessible at <https://link.springer.com/article/10.1007/s13347-020-00429-0>.

¹⁴ *Id.* at 741.

¹⁵ Hannah Bloch-Wehba, *Global Platform Governance: Private Power in the Shadow of the State*, 71 SMU L. REV. 27, 39 (2019); Jack M. Balkin, *Old-School/New-School Speech Regulation*, 127 HARV. L. REV. 2296, 2298–99 (2014).

¹⁶ Mark Zuckerberg, *Preparing for Elections*, FACEBOOK (Mar. 14, 2021), <https://www.facebook.com/notes/737729700291613/>.

¹⁷ *Id.*

¹⁸ Ryan Tracy, *Facebook Bowed to White House Pressure, Removed Covid Posts*, WALL ST. J. (Jul. 28, 2023, 5:30 AM), <https://www.wsj.com/articles/facebook-bowed-to-white-house-pressure-removed-covid-posts-2df436b7>.

¹⁹ See generally Robert Gorwa, Reuben Binns & Christian Katzenbach, *Algorithmic Content Moderation: Technical and Political Challenges in the Automation of Platform Governance*, 7 B. D. & SOC. 7 (2020).

Platform censorship is often performed in coordination with, or under pressure from, government actors. In particular, government actors may leverage their power and influence over social media platforms to influence what content is amplified or censored. In the United States, the Twitter Files saga suggest that government actors sought to influence Twitter’s content moderation behavior and that such moderation was slanted and unbalanced. This is because, in the words of Matt Taibbi writing in December 2022, “Twitter was and is overwhelmingly staffed by people of one political orientation, there were more channels, more ways to complain, open to the left ... than the right.”²⁰ Even more worrisome, authoritarian regimes in China, Russia, and elsewhere influence social media platforms to censor their citizens and silence political dissent.²¹

The concern regarding user manipulation is not simply about censorship. It also is about commercialization and amplification. Big Tech companies have economic incentives to target and amplify certain kinds of speech that increases screen time and ad revenue.²² As Senator Mike Lee has stated, while Big Tech companies claim that they are not targeting teenagers, their algorithms do that work for them, which explains why they collect data on teenagers even while they claim they’re not targeting those ads in that way.²³ At a recent Senate Judiciary Committee Hearing addressing *Big Tech and the Online Child Sexual Exploitation Crisis*, Senator Amy Klobuchar noted that “[f]or too long, we have been seeing social media companies turn a blind eye when kids have joined these platforms in record numbers. They have used algorithms to push harmful content because that content got popular.”²⁴ The corollary to the censorship concern is the concern that Big Tech platforms commercialize all speech and amplify harmful speech to increase revenue.

Question from Senator Thom Tillis

4. Groups with different viewpoints have weighed in on algorithms. Some suggest that more transparency is needed, while others want more privacy. Can you provide your perspective on whether more or less transparency is needed when it comes to algorithms?

Answer from Professor Roger Alford

The transparency/privacy debate regarding algorithms is fact dependent. At least in some respects more transparency is beneficial.

²⁰ Matt Taibbi (@mtaibbi), TWITTER, (Dec. 2, 2022, 7:02 PM), available at <https://twitter.com/mtaibbi/status/1598829996264390656>.

²¹ Dasha Litvinova, *The cyber gulag: How Russia tracks, censors and controls its citizens*, AP NEWS (May 23, 2023 8:20 AM), <https://apnews.com/article/russia-crackdown-surveillance-censorship-war-ukraine-internet-dab3663774feb666d6d0025bcd082fba>; Anton Troianovski & Valeriya Safronova, *Russia Takes Censorship to New Extremes, Stifling War Coverage*, NEW YORK TIMES (Mar. 4, 2022), <https://www.nytimes.com/2022/03/04/world/europe/russia-censorship-media-crackdown.html>; *Russia: Gowing Internet Isolation, Control, Censorship*, HUMAN RIGHTS WATCH (Jun. 18, 2020 3:10 PM), <https://www.hrw.org/news/2020/06/18/russia-growing-internet-isolation-control-censorship>; Yaqiu Wang, *China’s Social Media Interference Shows Urgent Need for Rules*, HUMAN RIGHTS WATCH (Aug. 14, 2023 12:52 AM), <https://www.hrw.org/news/2023/08/14/chinas-social-media-interference-shows-urgent-need-rules>; Beina Xu & Eleanor Albert, *Media Censorship in China*, COUNCIL ON FOREIGN RELATIONS (Feb. 17, 2017 7:00 AM), <https://www.cfr.org/backgrounder/media-censorship-china>.

²² SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* 93 (2019) (“Google has discovered a way to translate its nonmarket interactions with users into surplus raw material for the fabrication of products aimed at genuine market transactions with its real customers: advertisers”).

²³ Bryan Schott, *Lee Asks Whistleblower Whether Facebook Targets Teenagers*, THE SALT LAKE TRIBUNE (Oct. 5, 2021 5:58 PM), <https://www.sltrib.com/news/politics/2021/10/05/lee-asks-whether-facebook/>.

²⁴ *Big Tech and the Online Child Sexual Exploitation Crisis: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. (2024) (opening remarks of Sen. Amy Klobuchar, Member, S. Comm. on the Judiciary).

For example, more transparency is needed with respect to Big Tech’s use of algorithms to harm competition. For example, the AMERICA Act would require Big Tech companies acting as buy-side and sell-side brokerages in online advertising markets to supply to their customers sufficient information to confirm that they are complying with their best interest and best execution duties.²⁵ Such obligations are consistent with transparency obligations in the financial markets.

There also should be more transparency with respect to algorithms as they relate to work attribution and intellectual property violations. When AI algorithms scrape data from the internet, including material behind paywalls or copyrighted works in order to train AI platforms or create new content, this process typically does not reveal, credit, or compensate the copyright holder. For example, the New York Times filed a lawsuit against Microsoft and OpenAI in December 2023 alleging that millions of articles published by the New York Times were used to train automated chatbots that now compete with the news outlet as a source or reliable information.²⁶ The lawsuit alleges that the defendants should be held responsible for “billions of dollars in statutory and actual damages” related to the “unlawful copying and use of The Times’s uniquely valuable works.”²⁷

Question from Senator Thom Tillis

5. Do you believe that large companies and platforms can use algorithms to stifle innovation or small businesses?

Answer from Professor Roger Alford

Yes. Big Tech companies routinely use algorithms to stifle innovation and harm small businesses. As discussed in my written testimony, Big Tech companies frequently use algorithms to facilitate the abuse of monopoly power. For example, as outlined in the Federal Trade Commission complaint against Amazon, Amazon uses algorithms to punish third-party sellers that offer lower prices off Amazon. It also uses algorithms as a policing mechanism to enforce against third-party sellers’ price parity clauses.²⁸ Similarly, as outlined in the state and federal government complaints against Google, Google pays over \$25 billion per year to be the default search engine on mobile devices in order to deny search engine competitors the data necessary for scale. As a result, Google is able to stifle innovation, maintain its monopoly position in search, and charge monopoly prices to large and small advertisers. Finally, as outlined in both the Texas and DOJ complaints, Google’s monopoly position in the publisher ad server market gives it control over which exchanges can bid on the vast majority of ad inventory. Because of Google’s involvement and dominance on the buy-side, sell-side, and the exchanges in the middle, it has information advantages, and uses its algorithms to exploit those advantages for its own benefit and to the detriment of its own clients.²⁹

²⁵ AMERICA Act, S. 1073, 118th Cong. (2023).

²⁶ Michael Grynbaum & Ryan Mac, *The Times Sues OpenAI and Microsoft Over A.I. Use of Copyrighted Work*, NY TIMES (Dec. 27, 2023), <https://www.nytimes.com/2023/12/27/business/media/new-york-times-open-ai-microsoft-lawsuit.html>.

²⁷ Complaint at ¶ 9, *The New York Times Company v. Microsoft Corp.*, et al., 1:23-CV-11195 (S.D.N.Y. Dec. 27, 2023).

²⁸ Alford, *supra* note 1.

²⁹ *Id.*

Question from Senator Thom Tillis

6. What do you believe is the role of government in regulating algorithms? What, if any, unintended consequences would there be if Congress gets involved?

Answer from Professor Roger Alford

The role of government in regulating algorithms is to focus on the end rather than the means. Algorithms are powerful tools in the hands of technology companies that can be used for good or for ill. To the extent algorithms are used to engage in harmful or illegal conduct, the government should be part of a shared and concerted effort to combat such misconduct. Depending on the circumstances, this might come in the form of new *ex ante* regulation or in the form of vigorous enforcement action. The intended and unintended consequences that flow from such action depends on the nature of that action.

In the context of the discussion of algorithms presented at the hearing, we focused on government enforcement actions against Big Tech companies that use algorithms to engage in anticompetitive conduct. Federal and state government enforcement actions against Big Tech companies are welcome and necessary efforts to address allegations of unlawful antitrust violations. But such actions are only part of the solution.

We also focused at the hearing on proposed legislation to address Big Tech's misuse of algorithms to harm competition. As outlined above, the AMERICA Act is an example of proposed legislation that would complement current enforcement actions and facilitate a more competitive market of digital online advertising. As I have testified before, conservatives should support such Big Tech legislation.³⁰ These digital markets are subject to powerful network effects and naturally prone to monopolization. And these markets impact not only competition but also other fundamental concerns such as the collection of personal data and the free flow of information and discourse. Legislation such as the AMERICA Act attempts to future proof the online digital advertising industry by imposing reasonable guard rails on the algorithmic behavior of all medium and large online advertising brokers.³¹

Despite the immense enthusiasm about potential bipartisan legislation to address Big Tech's abuse of its monopoly power,³² Big Tech lobbyists have spent hundreds of millions of dollars opposing those bills, and thus far legislative efforts have proven unsuccessful. A notable unintended consequence of Congress' recent efforts is to expose Big Tech's intense anxiety about any legislative efforts to promote effective competition and curb Big Tech's abuse of monopoly power.

³⁰ Roger P. Alford, *Competition in the Digital Advertising Ecosystem*, Hearing Before the Subcomm. on Competition Policy, Antitrust, and Consumer Rights of the S. Comm. on the Judiciary, 118th Cong. (2023) (statement of Roger P. Alford, Professor of Law, Notre Dame Law School).

³¹ *Id.*

³² See generally Roger P. Alford, *The Bipartisan Consensus on Big Tech*, 71 EMORY L.J. 893 (2022).