



ARTICLE

Attention Capitalism: The Law and Political Economy of Attention Markets

John M. Newman*

Abstract. Attention has become one of the most heavily extracted and commodified resources in modern market economies. Firms now supply a wide range of everyday digital products and services in exchange for increasingly vast amounts of attention. A techno-deterministic account portrays this as inevitable, the result of abstract “market forces.” But the ongoing shift of activity into digital attention markets has not occurred in a legal vacuum. This Article is the first to undertake a broad-based survey of how general trade-governing laws have treated attention exchange. These laws, which run the gamut from property and contract to privacy, antitrust, and tax, exhibit what appear to be cross-disciplinary conflicts, internal contradictions, and coverage gaps. But upon closer examination, these phenomena are not random. Two common threads exist: Law has systematically channeled activity into attention markets by privileging attention-extractive business strategies, and law has concentrated power into corporate attention-extractive firms by permitting consolidation and disempowering individuals. U.S. laws already deeply structure attention markets and do so in ways that incentivize resource extraction and facilitate domination. Highlighting the contingent role of law in constructing current forms of attention capitalism significantly expands the range of possibilities for restructuring these markets. Toward that end, the Article offers not only a robust, interdisciplinary paradigm to help guide such a project, but also a set of concrete policy prescriptions that would pause—and ultimately reverse—the status quo.

* Herff Chair of Excellence, University of Memphis School of Law. This Author would like to thank the participants at conferences and workshops hosted by the UC Irvine School of Law, New York University School of Law, Santa Clara University School of Law, University of Melbourne School of Law, and Aix-Marseille University. Rebecca Haw Allensworth, Reuven S. Avi-Yonah, Samuel Becher, Gregory Day, Andrew Elmore, Michal Gal, Mark Lemley, Christopher Leslie, Salil Mehra, Sanjukta Paul, Andres Sawicki, and Wendy Wagner offered especially helpful comments on early drafts. Marcela Mulholland, Parinita Kare, Hankyul Song, Camila Chediak, and Hayden Cherry provided excellent research assistance.

Table of Contents

Introduction 417

I. Current Structuring of Attention Markets: The Role of Law..... 423

 A. Intrafield Analyses..... 423

 1. Contract 423

 2. Property 426

 3. Privacy 429

 4. Tax..... 432

 5. Antitrust 434

 B. Cross-Field Comparison: Contract Versus Antitrust..... 437

II. Toward a New Paradigm 440

 A. The Need for a Multidisciplinary Approach..... 442

 B. Against Private Attention Rights as an Organizing Principle 444

III. Application: Attention and Attention Capitalism..... 447

 A. Cognitive Overload and Depletion..... 448

 B. Commoditization via Extraction and Exchange..... 451

 C. Interfirm Competition for Attention..... 455

IV. (Re)structuring Attention Markets 458

 A. Redirecting Existing Laws and Rules..... 459

 1. Increasing and improving antitrust enforcement 459

 2. Privacy protection 465

 3. Ending the contract special dispensation..... 466

 B. New Tools..... 467

 1. Hard limits on attention extraction..... 467

 2. Taxing corporate attention sales and consumption 471

 3. Limiting abuse of contract 474

Conclusion..... 475

Introduction

A particular group of attendees at President Donald J. Trump's 2025 inauguration attracted a great deal of media attention. Present and prominently seated were Mark Zuckerberg (chief executive officer of Meta), Jeff Bezos (executive chair of Amazon), Sundar Pichai (chief executive officer of Alphabet), Elon Musk (executive chair of X Corp.), Tim Cook (chief executive officer of Apple), and Shou Zi Chew (chief executive officer of TikTok).¹ What common thread connected them? It was not that they all represented U.S.-based firms, given TikTok's presence. Nor did they represent the largest technology firms—neither Microsoft nor NVIDIA had representatives in attendance, despite being nearly twice as large as Meta by market capitalization.² Largely overlooked by media commentary and public discourse was this: All of the chosen firms are heavily engaged in attention capitalism.³ This is most obviously true of Meta and X Corp., which derive about 90% of their revenues from selling users' attention to advertisers.⁴ Alphabet-owned Google is not far behind, at 75% of revenues from attention sales.⁵ But it is increasingly true of Amazon and Apple as well. Amazon has dramatically increased its commodification of attention in recent years, so much so that its advertisement-sales business is now a primary contributor to its overall profitability.⁶ And a government antitrust lawsuit

-
1. Natasha Preskey, *Influencers, Tech Bros, MMA Fighters: Trump's Inauguration Guests*, BBC NEWS (Jan. 20, 2025), <https://perma.cc/6KBZ-NXTZ>.
 2. As of January 17, 2025, Microsoft's market capitalization was \$3.19 trillion, NVIDIA's was \$3.37 trillion, and Meta's was \$1.55 trillion. See *Microsoft Corporation (MSFT)*, STOCK ANALYSIS, <https://perma.cc/PA79-PCK2> (archived Jan. 26, 2026) (Microsoft); *NVIDIA Corporation (NVDA)*, STOCK ANALYSIS, <https://perma.cc/MC4Y-8QZD> (archived Jan. 26, 2026) (NVIDIA); *Meta Platforms, Inc. (META)*, STOCK ANALYSIS, <https://perma.cc/B65Q-MXXC> (archived Jan. 26, 2026) (Meta).
 3. Nonlegal commentators have been quicker to recognize that attention intermediaries engage in an extraction and commodification process. See Chris Hayes, *You're Being Alienated from Your Attention*, ATLANTIC (Jan. 22, 2025), <https://perma.cc/6UYF-Q7FG>; D. Graham Burnett, Alyssa Loh & Peter Schmidt, *Powerful Forces Are Fracking Our Attention. We Can Fight Back.*, N.Y. TIMES (Nov. 24, 2023), <https://perma.cc/56DU-9JS8> (referring to "extractive profit models [that] amount to the systematic fracking of human beings").
 4. Jonathan Vanian, *Meta's Advertising Growth Is Proof that Hefty AI Spending Is Already Paying Off*, CNBC (July 31, 2024, 8:40 PM EDT), <https://perma.cc/2YRW-GCQR>; Ryan Mac & Tiffany Hsu, *Twitter's U.S. Ad Sales Plunge 59% as Woes Continue*, N.Y. TIMES (June 5, 2023), <https://perma.cc/Y5AR-ZQQY>.
 5. Tiago Bianchi, *Distribution of Google Segment Revenues from 2017 to 2024*, STATISTA (Feb. 6, 2025), <https://perma.cc/42UM-N8PX>.
 6. Ashley Capoot, *Amazon's Advertising Revenue Jumps 24% in First Quarter*, CNBC (Apr. 30, 2024, 5:14 PM EDT), <https://perma.cc/6VRE-HP9G> ("[T]he company is counting on ads for more growth and profit as expansion slows elsewhere.").

against Apple recently revealed that it has been selling users' attention to Google for payments in excess of twenty billion dollars per year.⁷

Attention has rapidly become one of the world's most valuable resources.⁸ Over the past four decades, the convergence of computing and networking has facilitated an explosion in consumer awareness of digital products and services.⁹ But this is a two-way street: New ways for people to access information also means new ways for firms to access people's attention.¹⁰ Profit-seeking firms have always needed to attract some attention to sell their products,¹¹ but firms now increasingly seek to extract and commodify attention itself. Online search, social networking, creative content, news, travel services, real estate listings, and countless other products and services are now offered in exchange for humans' attention.¹² This is "attention capitalism,"¹³ a process that has quickly come to play a major role in our contemporary political economy.¹⁴ In 2016, adults in the United States already collectively devoted well over 700 billion hours of their time to attention market products.¹⁵ By one estimate, the monetary value of that attention would be nearly one-third as large as the entire annual U.S. gross domestic product.¹⁶ This growth trend shows no sign of slowing.¹⁷

7. See Leah Nylen, *Google's Payments to Apple Reached \$20 Billion in 2022, Antitrust Court Documents Show*, BLOOMBERG (May 1, 2024, 3:09 PM PDT), <https://perma.cc/P27G-3T47>.

8. See, e.g., CHANTAL LINE CARPENTIER, UNITED NATIONS, *NEW ECONOMICS FOR SUSTAINABLE DEVELOPMENT: ATTENTION ECONOMY 1-2* (2023).

9. See Ramsi A. Woodcock, *The Obsolescence of Advertising in the Information Age*, 127 YALE L.J. 2270, 2301-04 (2018) (discussing how social media's "explosion of word-of-mouth" recommendations and online search engines reduces the need for advertising).

10. See Herbert A. Simon, *Designing Organizations for an Information-Rich World*, in *COMPUTERS, COMMUNICATIONS, AND THE PUBLIC INTEREST* 37, 38, 40-41 (M. Greenberger ed., 1971) (probing how firms might operate in an "information-rich world"); Jake Linford, *Copyright and Attention Scarcity*, 42 CARDOZO L. REV. 143, 145-46 (2020) (exploring how changes in copyright protection affect attention scarcity).

11. See John M. Newman, *Antitrust in Attention Markets: Objections and Responses*, 59 SANTA CLARA L. REV. 743, 747 (2020) ("Firms require the attention of trading partners—they must be *perceived* by counterparties—in order to participate in markets at all.").

12. See David S. Evans, *Attention Platforms, the Value of Content, and Public Policy*, 54 REV. INDUS. ORG. 775, 776 (2019).

13. CHRIS HAYES, *THE SIRENS' CALL: HOW ATTENTION BECAME THE WORLD'S MOST ENDANGERED RESOURCE* 185 (2025).

14. See D. Graham Burnett & Eve Mitchell, *Attention Sanctuaries: Social Practice Guidelines and Emergent Strategies in Attention Activism*, 1546 ANNALS N.Y. ACAD. SCIS. 5, 5 (2025).

15. Evans, *supra* note 12, at 780.

16. *Id.* at 781-82.

17. Much the opposite: The global coronavirus pandemic massively accelerated the already-ongoing channeling of human activity into digital attention markets. See Deedra Vargo, Lin Zhu, Briana Benwell & Zheng Yan, *Digital Technology Use During COVID-19 Pandemic: A Rapid Review*, 3 HUM. BEHAV. & EMERGING TECHS. 13, 14-15 (2021).

Despite all this, attention capitalism has remained largely unexamined and often misunderstood.¹⁸ One account pins its rise on abstract market forces—the inexorable pull of “economic gravity.”¹⁹ By abstracting away the role of legal constructs, this narrative centers “the market” (or “technology”) as the prime actor, “a force with its own magical imperatives.”²⁰ The current state of affairs is, under that view, inevitable.²¹

But like other systems of market-based extraction and commodification, attention markets are deeply structured by a wide range of general trade-regulating laws. The current structure of these markets is therefore not inevitable, but contingent. This Article is the first to undertake a broad-based survey of how these laws, ranging from contract and property to privacy, antitrust, and tax, have treated attention extraction and exchange. At first glance, these laws may appear to have treated attention markets in a disjointed, slipshod fashion.²² But upon closer examination, two unifying threads emerge:

18. See Linford, *supra* note 10, at 145, 158 & n.86 (contending that “scarcity of attention complicates the comedic tale told about a world with low or no information costs” and that a focus on production and distribution costs for information “ignores a key factor in determining the socially optimal level of creative content: consumers’ increasingly scarce attention”). Outside the narrow confines of advertising law, only a few legal scholars and economists have explored attention capitalism. See, e.g., Linford, *supra* note 10, at 163-65; Evans, *supra* note 12, at 776; Tim Wu, *Blind Spot: The Attention Economy and the Law*, 82 ANTITRUST L.J. 771, 771 (2019) [hereinafter Wu, *Blind Spot*]; John M. Newman, *The Myth of Free*, 86 GEO. WASH. L. REV. 513, 553-55 (2018); John M. Newman, *Antitrust in Zero-Price Markets: Applications*, 94 WASH. U. L. REV. 49, 51 (2016) [hereinafter Newman, *Applications*]; John M. Newman, *Antitrust in Zero-Price Markets: Foundations*, 164 U. PA. L. REV. 149, 152 (2015) [hereinafter Newman, *Foundations*]. See generally, e.g., TIM WU, *THE ATTENTION MERCHANTS: THE EPIC SCRAMBLE TO GET INSIDE OUR HEADS* (2016) [hereinafter WU, *ATTENTION MERCHANTS*] (offering a history of advertising practices). Of these, Tim Wu’s *Blind Spot*, *supra*, remains the most thorough treatment to date inasmuch as it examines two bodies of law, though it is still narrower in scope than the present contribution. *Id.* at 771. *Blind Spot* also addresses non-exchange-based attentional issues (e.g., airline passengers loudly using telephones on flights) that are outside the scope of this Article. *Id.* at 779. A body of work generally categorized under the heading of “advertising and marketing” law focuses on direct regulation of advertising. See, e.g., Eric Goldman, *A Coasean Analysis of Marketing*, 2006 WIS. L. REV. 1151, 1154 (2006). See generally, e.g., REBECCA TUSHNET & ERIC GOLDMAN, *ADVERTISING & MARKETING LAW: CASES AND MATERIALS* (5th ed. 2020). But this body of law and commentary generally does not distinguish between attention exploitation and attention extraction. Additionally, because capturing attention is the desired end of most speech, some First Amendment theorists have explored the free-speech implications of attention. See Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1, 55 (2004) (arguing for a revised articulation of speech values in response to the rise of digital technology).

19. See CHRIS ANDERSON, *FREE: THE FUTURE OF A RADICAL PRICE* 241 (2009).

20. MATTHEW B. CRAWFORD, *THE WORLD BEYOND YOUR HEAD: ON BECOMING AN INDIVIDUAL IN AN AGE OF DISTRACTION* 221 (2015).

21. See Amanda Palmer, *Foreword* to CORY DOCTOROW, *INFORMATION DOESN’T WANT TO BE FREE: LAWS FOR THE INTERNET AGE*, at xvii (2015).

22. See *infra* Part I.

U.S. trade-regulating laws have forcefully channeled activity away from other areas into attention markets and have systematically favored a handful of heavily capitalized, attention-extractive firms. These findings are resonant with the growing body of research, sometimes labeled “law and political economy,” identifying myriad ways in which U.S. laws and legal systems serve to consolidate power and facilitate domination.²³

The current legal structuring of attention markets carries serious and far-ranging implications for natural persons.²⁴ People interact with attention capitalism in various ways: as content creators, users, viewers, listeners, and more. To illustrate how seemingly disparate bodies of trade-regulating law can work together to favor powerful attention-extractive intermediaries, consider the example, developed more fully in Part I.B below, of contract and antitrust law. Courts adjudicating contract disputes have repeatedly enforced one-sided terms of service drafted and imposed by Google’s corporate subsidiary, YouTube, against artists and creators.²⁵ These opinions reason that Google charitably provides a “free” service, creating an internal inconsistency by simultaneously recognizing a backdrop of bargained-for exchanges.²⁶ At the same time, lax antitrust enforcement has consolidated coordination rights and power: Regulators unconditionally permitted Google to acquire YouTube,²⁷ giving Google control over not only a monopoly in online general search²⁸ but also over a leading video-hosting service. Regulators then allowed Google to use its monopoly power over general online search to steer people toward YouTube and away from alternatives.²⁹ Unsurprisingly, tensions worsened over time

23. See Jedediah Britton-Purdy, David Singh Grewal, Amy Kapczynski & K. Sabeel Rahman, *Building a Law-and-Political Economy Framework: Beyond the Twentieth-Century Synthesis*, 129 YALE L.J. 1784, 1799-1813, 1818-29 (2020). See generally THOMAS PIKETTY, CAPITAL AND IDEOLOGY (Arthur Goldhammer trans., Harvard Univ. Press 2020) (2019) (describing how legal structures have variously served to entrench or, for a relatively brief period during the mid-twentieth century, reduce societal power and wealth imbalances).

24. Natural persons have limited coordination rights relative to firms like Alphabet or Meta. Sanjukta Paul, *Antitrust as Allocator of Coordination Rights*, 67 UCLA L. REV. 378, 380-81 (2020) (discussing labor market coordination rights in the context of antitrust law); Burnett & Mitchell, *supra* note 14, at 6 (referring to the “deleterious effects of an extractive financialization of human attention”).

25. See *infra* Part I.A.1.

26. See *infra* Part I.A.1.

27. See Dawn Kawamoto, *Google-YouTube Merger Clears Antitrust Review*, CNET (Nov. 6, 2006, 7:20 AM PT), <https://perma.cc/973S-U7S8>.

28. *United States v. Google LLC*, 747 F. Supp. 3d 1, 107 (D.D.C. 2024).

29. Casey Newton, *The Antitrust Case Against Google Is Gathering Steam*, VERGE (July 15, 2020, 5:00 AM CDT), <https://perma.cc/2QYX-LDUN>.

between YouTube and the artists and creators who supply much of the video content it uses to extract and commodify viewers' attention.³⁰

When confronting examples like these, it may be tempting to conclude that courts and regulators simply made a few mistakes, and that a better-informed, more technocratic approach is the solution. But in these and a swath of other doctrinal areas described below, consistent patterns emerge, suggesting something deeper is at play. This finding departs from, for example, the seminal scholarly treatment of "surveillance capitalism," which depicts the landscape as "lawless."³¹ Much the opposite: General trade-regulating laws have given a consistent and particular shape and structure to attention capitalism.

This Article excavates and spotlights the role that law has played in structuring attention markets. Two overarching payoffs emerge. First, current forms of attention capitalism—which systematically privilege already-powerful firms over natural persons—are contingent, not inevitable. Second, and relatedly, attention markets ought to be a focal point for any movement that seeks to reform legal systems in more just ways—a project that will require holistic changes across multiple doctrinal areas. Part I of this Article surveys a set of general trade-regulating legal regimes that configure attention markets.³² Examining judicial and agency decisionmaking vis-à-vis attention markets reveals several apparently problematic features: internal inconsistencies within a given field, coverage gaps within a given field, and conflicting cross-field treatment of the same subject matter. Courts have issued illogical rulings,³³ important questions have gone unaddressed,³⁴ and agencies have derogated from their congressionally mandated duties.³⁵ All of this may seem to render these legal fields indeterminate. But a closer look reveals that law has systematically channeled activity into attention markets and afforded unique legal dispensations to already-powerful, attention-extractive intermediaries at the expense of natural persons, who have been disfavored by courts and ignored by regulators.

30. Julia Alexander, *The Golden Age of YouTube Is Over*, VERGE (Apr. 5, 2019, 8:31 AM CDT), <https://perma.cc/F3SF-VNPK>.

31. See SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* 231 (2019); cf. Fleur Johns, "Surveillance Capitalism" and the Angst of the Petit Sovereign, 71 BRIT. J. SOCIO. 1049, 1049-50 (2020) (book review) (critiquing Shoshana Zuboff's lawlessness thesis for overlooking a century of jurisprudence on standardized contracting).

32. Part I below is thus meant to contribute, however modestly, to the ongoing movement to move away from a dichotomous conception of the relationship between politics and law, on the one hand, and the economy and markets, on the other. See Britton-Purdy et al., *supra* note 23, at 1790-91.

33. See *infra* Part I.A.1.

34. See *infra* Part I.A.2.

35. See *infra* Part I.A.5.

In place of the techno-deterministic account, with its overreliance on neoclassical economic concepts and tools, Part II urges the development of a more holistic, interdisciplinary account of how attention markets function and the values implicated by mass attention extraction and commodification. Restructuring attention markets to serve alternative goals will require widening the collective lens beyond a narrow focus on property rights³⁶ and easily quantifiable effects, which constrain neoliberal regulatory approaches.³⁷

Part III begins this foundational task of building out a practical, robust understanding of attention markets—one that accounts for the nature of attention itself, the roles played by various stakeholders, and the effects (good and ill) caused by interfirm rivalry. It draws upon literature in cognitive psychology and neuroscience to describe how humans direct attention, how attention can be degraded and exhausted,³⁸ how market actors seek to acquire and commodify attention,³⁹ and the societal spillovers⁴⁰ from attention market competition and extraction.⁴¹

A different pathway is possible. Toward that end, Part IV applies the legal findings in Part I with the attentional construct built out in Part III to offer a set of responsive policy prescriptions that would pause, and ultimately reverse, the current course. These prescriptions include increasing and improving antitrust enforcement,⁴² reforming privacy law to recognize attentional harms from targeted surveillance advertising,⁴³ ending the special dispensation granted by contract law,⁴⁴ imposing hard limits and caps on attention extraction and sales,⁴⁵ implementing tax policy changes to disincentivize overextraction,⁴⁶ and prohibiting one-sided terms of service that arrogate power into attention-

36. See *infra* Part II.B (arguing against the extension of “rights talk” to include attention rights). For the foundational work on the limits of rights-based analytical frameworks, see generally MARY ANN GLENDON, *RIGHTS TALK: THE IMPOVERISHMENT OF POLITICAL DISCOURSE* (1991).

37. See Britton-Purdy et al., *supra* note 23, at 1790 (“This methodological approach offers no framework . . . to analyze, let alone counter, contemporary concentrations of wealth and power . . .”).

38. See *infra* Part III.A.

39. See *infra* Part III.B.

40. Neoclassical economists label such spillovers negative “externalities,” a framing that some working in the law-and-political-economy movement have critiqued. See Alyssa Battistoni, *The Failure of Market Solutions and the Green New Deal—Pt 1*, LAW & POL. ECON. PROJECT BLOG (Mar. 29, 2019), <https://perma.cc/CC5T-RYZM>.

41. See *infra* Part III.C.

42. See *infra* Part IV.A.1.

43. See *infra* Part IV.A.2.

44. See *infra* Part IV.A.3.

45. See *infra* Part IV.B.1.

46. See *infra* Part IV.B.2.

extractive intermediaries.⁴⁷ Recent developments on some of these fronts, though scattered and precarious, offer room for hope while underscoring the need for a holistic, sustained reform project.⁴⁸ This Article offers not only a robust paradigm for such a project, but also a set of concrete policy prescriptions that would, if implemented, serve as meaningful steps toward constructing a more just political economy of attention markets.

I. Current Structuring of Attention Markets: The Role of Law

Existing accounts of the recent sharp increase in attention-market activity tend to center abstract concepts like “technology” and “market forces.”⁴⁹ Far less attention has been paid to the role of law. The following discussion canvasses several general trade-regulating laws’ treatment of attention extraction and commodification. It exposes that the rise of attention markets has not occurred in a legal vacuum. What may at first blush seem to be a mishmash of contradictions, conflicts, gaps, and descriptive errors in various doctrinal areas of law, like property and contract, turns out instead to be a consistent channeling of activity into attention markets and power into a handful of attention-extractive intermediaries, yielding outcomes that are “hard to square with any obvious intuitions of justice.”⁵⁰

A. Intrafield Analyses

Even within particular bodies of law, unusual treatment of attention-market activity is readily apparent. Close examination of legal decisionmaking involving attention markets reveals self-contradictory reasoning, a large gap in coverage, and unjustified preferential treatment, up to and including *de facto*—and even *de jure*—immunities. The Subparts that follow interrogate a range of general trade-regulating laws: contract, property, privacy, tax, and antitrust.

1. Contract

Many intermediaries that deploy attention-extractive, advertising-based business models—social networks, general search, video-sharing services, discussion forums, and more—rely heavily on user-generated content to acquire

47. See *infra* Part IV.B.3.

48. By way of full disclosure, this Author oversaw the FTC’s antitrust cases against Amazon and Meta while serving under then-Chair Lina M. Khan.

49. See *supra* notes 19-20 and accompanying text.

50. BARBARA H. FRIED, *THE PROGRESSIVE ASSAULT ON LAISSEZ FAIRE: ROBERT HALE AND THE FIRST LAW AND ECONOMICS MOVEMENT* 3 (1998).

attention.⁵¹ Contract disputes have often arisen between users who upload content and the firms that host such content.⁵² A close examination of judicial opinions in these cases reveals a conspicuous internal inconsistency: implicitly treating attention-market interactions between natural persons and firms as exchanges of value while also explicitly treating firms' provision of online platform services to users as a charitable action.

Consider *Lewis v. YouTube, LLC*, a state court decision.⁵³ YouTube invoked an exculpatory clause contained in YouTube's terms of service against the user.⁵⁴ The court stated that contracts between YouTube and its users were enforceable.⁵⁵ But turning to the issue of YouTube's one-sided exculpatory clause, the court stated, "[a]s in the present case, these clauses are appropriate when one party is offering a service for free to the public."⁵⁶ From a doctrinal perspective, the internal tension is readily apparent. The formal requirements for a contract to be enforceable include consideration: roughly speaking, that each side exchange something of value.⁵⁷ The *Lewis* opinion enforced YouTube's preferred terms of service as a contract.⁵⁸ Yet the very same opinion also analogized YouTube to a charity providing services gratis—and afforded YouTube a special dispensation: a unique legal power to avoid liability.⁵⁹

A federal court decision, *Darnaa, LLC v. Google, Inc.*, made a similar move: enforcing an exculpatory clause that limited Google's liability as against a content creator on the stated grounds that such clauses "are particularly appropriate where, as here, one party is offering a service for free."⁶⁰ *Darnaa* also rejected the plaintiff's argument that the term was unconscionable on the stated grounds that "YouTube offers its [video] hosting services at no charge."⁶¹

51. Tin Trung Nguyen & Ekant Veer, *Why People Watch User-Generated Videos? A Systematic Review and Meta-Analysis*, INT'L J. HUM.-COMPUT. STUD., Jan. 2024, at 1, 1.

52. See, e.g., Qian v. YouTube, LLC, No. 24-1116, 2025 WL 582785 (2d Cir. Feb. 24, 2025); Phillips v. Google LLC, No. 24-CV-5742, 2025 WL 1795894 (S.D.N.Y. June 30, 2025); Hall v. YouTube, LLC, No. 24-cv-04071, 2025 WL 1482007 (N.D. Cal. May 5, 2025). One infamous dispute between a user and firm culminated in a YouTube user named Nasim Najafi Aghdam opening fire on YouTube's Silicon Valley headquarters, wounding three victims. See Holly Yan & Faith Karimi, *YouTube Shooter Visited Gun Range Before Attacking Strangers, Police Say*, CNN (Apr. 5, 2018, 8:20 AM EDT), <https://perma.cc/7PPA-4UX2>.

53. 197 Cal. Rptr. 3d 219 (Ct. App. 2016).

54. Respondent's Brief at 24-27, *Lewis v. YouTube, LLC*, 197 Cal. Rptr. 3d 219 (Ct. App. 2016) (No. H041127), 2014 WL 6980086.

55. *Lewis*, 197 Cal. Rptr. 3d at 225.

56. *Id.* at 224.

57. See RESTATEMENT (SECOND) OF CONTRACTS § 71 (A.L.I. 1981).

58. 197 Cal. Rptr. 3d at 225.

59. *Id.* at 224.

60. No. 15-cv-03221, 2015 WL 7753406, at *5 (N.D. Cal. Dec. 2, 2015).

61. *Id.* at *2.

Nor are exculpatory clauses the only one-sided terms to benefit from a thumb on the scales. In *Song fi, Inc. v. Google Inc.*, a federal district court enforced mandatory forum- and venue-selection clauses in YouTube's terms of service.⁶² The court reasoned that "[b]ecause many millions of users from across the globe create accounts and upload videos on YouTube's website free of charge, [these clauses are] necessary" for Google to manage its own costs.⁶³ Under that view, YouTube is a charitable service and therefore lacks the revenue stream that would allow a for-profit business to cover its costs.⁶⁴ "Having taken advantage of YouTube's free services," the court concluded, "Plaintiffs cannot complain that the terms allowing them to do so are unenforceable."⁶⁵ But again, if this reasoning were applied throughout the opinion, then Google's mandatory forum-selection terms themselves would be unenforceable for lack of consideration.

Of course, attention-extractive firms are not the only entities that have successfully invoked exculpatory clauses or mandatory forum-selection clauses.⁶⁶ What is unique to these cases is instead the courts' own stated view that the firms are offering a service free of charge. When a typical litigant invokes a purportedly contractual term but, in the court's view, has not exchanged anything as part of the purported contract, courts typically reject the litigant's claim or defense for lack of consideration.⁶⁷

Lewis, Darnaa, and *Song fi* are just three especially glaring examples of this type of reasoning.⁶⁸ These opinions are, on their face, paradoxical. If these

62. 72 F. Supp. 3d 53, 64 (D.D.C. 2014).

63. *Id.* (quoting Declaration of Kate Hushion in Opposition to Plaintiff's Temporary Restraining Order and Preliminary Injunction at 2, *Song fi*, 72 F. Supp. 3d 53 (No. 14-283)).

64. Google captured \$66 billion in revenue during the same year the *Song fi* opinion was issued. See ALPHABET INVS. RELS., GOOGLE INC. ANNOUNCES FOURTH QUARTER AND FISCAL YEAR 2014 RESULTS 1 (2015), <https://perma.cc/J83T-9DNM>.

65. *Song fi*, 72 F. Supp. 3d at 64.

66. See Andrea J. Boyack, *Abuse of Contract: Boilerplate Erasure of Consumer Counterparty Rights*, 110 IOWA L. REV. 497, 504-05 (2025).

67. See, e.g., *Kirksey v. Kirksey*, 8 Ala. 131, 133 (1845) (finding lack of consideration for a promise).

68. See, e.g., *Ray v. Google LLC*, No. 23-cv-04222, 2023 WL 7305048, at *8 (N.D. Cal. Nov. 6, 2023) ("As other courts have noted, YouTube's TOS 'involve only a marginal degree of procedural unconscionability' because 'YouTube offers its hosting services at no charge . . .'" (quoting *Darnaa, LLC v. Google, Inc.*, No. 15-cv-03221, 2015 WL 7753406, at *2 (N.D. Cal. Dec. 2, 2015)); *King v. Facebook, Inc.*, No. 19-cv-01987, 2019 WL 6493968, at *2 (N.D. Cal. Dec. 3, 2019), *aff'd*, 845 F. App'x 691 (9th Cir. 2021) ("[W]hile Facebook's Terms 'place restrictions on users' behavior,' they 'do not create affirmative obligations' on Facebook." (quoting *Young v. Facebook, Inc.*, No. 10-cv-03579, 2010 WL 4269304, at *3 (N.D. Cal. Oct. 25, 2010))). Sharp-eyed readers might point out that these cases all involve one state's law, and many of them emanate from the same district court, but instead of suggesting that these are unusual or anomalous cases, both observations

footnote continued on next page

services were truly available “free of charge,” then any purported contractual terms accompanying their delivery should, as a doctrinal matter, be unenforceable due to lack of consideration. Either (1) Google really does offer these services for free, in which case no contract existed to enforce; or (2) Google does not actually offer these services free of charge, in which case Google should not receive uniquely preferential treatment. This self-contradiction is especially striking in a field that purports to especially value internal consistency.⁶⁹

What exactly is happening here? Did all these judges simply “get it wrong”? The error is so elementary—the stuff of first-year law-school coursework. And there is a striking consistency of *outcome*, despite the facially self-contradictory reasoning. In each case, judges have enforced one-sided terms favorable to the attention-gathering corporate intermediary and unfavorable to the people who supply that intermediary with their creative labor and attention.

2. Property

Property law and scholarly commentary do not display the same facially contradictory treatment of attention exchanges. Instead, property law appears to have had nothing at all to say about attention markets.⁷⁰ This is, or ought to be, surprising. Property theorists have generally had no trouble conceiving of or identifying nontangible forms of property.⁷¹ And attention exchange has become a multibillion-dollar business strategy underlying multitrillion-dollar firms, as commentators in nonlegal fields like information technology and engineering have pointed out.⁷² Yet a recent commercial-database search turns

instead underscore the one-sided nature of these firms’ terms of service, which appear to typically include mandatory forum-selection provisions that force plaintiffs into the defendants’ home court. *See, e.g., Trump v. YouTube, LLC*, No. 21-cv-22445, 2021 WL 8398892, at *3 (S.D. Fla. Oct. 6, 2021) (citing several other cases with the same outcome in deciding to transfer the case to the Northern District of California).

69. *See, e.g., Mastrobuono v. Shearson Lehman Hutton, Inc.*, 514 U.S. 52, 63 (1995) (“[R]espondents’ reading of the two clauses violates another cardinal principle of contract construction: that a document should be read to give effect to all its provisions and to render them consistent with each other.”).

70. To be sure, property discourse has dealt with certain nonexchange attentional issues. For example, some of the orthodox law-and-economics literature focuses on search costs. *See* Richard A. Epstein, *Notice and Freedom of Contract in the Law of Servitudes*, 55 S. CAL. L. REV. 1353, 1356 (1982); Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1, 33 & n.127 (2000). But search costs are not exchanged, making them different in kind from the attention costs addressed in this Article.

71. *See, e.g., Charles A. Reich, The New Property*, 73 YALE L.J. 733, 737, 787 (1964) (“[T]he ‘privilege’ or ‘gratuity’ concept . . . is not much different from the absolute right of ownership . . .”).

72. Michael H. Goldhaber, *The Attention Economy and the Net*, FIRST MONDAY (Apr. 1997), <https://perma.cc/EX4S-SD5W> (“[I]n the new economy attention itself is property.”); *see* [footnote continued on next page](#)

up just a single secondary source⁷³ discussing “attention as property” in a footnote that cites to a now-defunct organization.⁷⁴ Ironically, the organization’s website appears to have since been taken over by a host of advertising-laden, clickbait articles.⁷⁵

Is this gap unusual? One way to get at that question is to compare the legal treatment of attention with the treatment of analogous “fictitious commodities,” things not produced specifically for marketization but that have nevertheless become the subject of marketplace activity.⁷⁶ Two especially close analogues are information and labor: Like attention, people (sometimes) produce information and labor and (sometimes) trade them for value in market settings.

As to information, both courts and scholars have frequently recognized property-like characteristics. Judicial opinions have explicitly treated

THOMAS H. DAVENPORT & JOHN C. BECK, THE ATTENTION ECONOMY: UNDERSTANDING THE NEW CURRENCY OF BUSINESS 13 (2001) (conceptualizing attention expenditure as an economic action). *But see* Patrick Crogan & Samuel Kinsley, *Paying Attention: Towards a Critique of the Attention Economy*, CULTURE MACH., 2012, at 1, 5 (describing Goldhaber’s argument that attention is a form of property as “ill-defined” and “unsubstantiated”). A few legal scholars have proposed a Coasean analysis of marketing but without explicitly treating attention as property. *See* Goldman, *supra* note 18, at 1156 (proposing a Coasean analysis of marketing activity); Dennis W. K. Khong, *An Economic Analysis of Spam Law*, 1 ERASMUS L. & ECON. REV. 23, 28, 39 (2004) (suggesting a Coasean framework as a solution to receiving spam). The first extended discussion treating attention as property from a legal commentator is Jasper L. Tran, *The Right to Attention*, 91 IND. L.J. 1023, 1051, 1054 (2016) (noting the “lack of discussion and dearth of scholarship from the information receiver’s perspective” and arguing for legal recognition of a right to attention based on several legal constructs, among them “economic/property rights”). More recently, though nearly a decade after Tran’s work, Nicholas Caputo argued that property rights over land include a “relatively narrow” right to attention, one (sometimes) vindicated by private nuisance cases. Nicholas Caputo, *Quiet Enjoyment: Uncovering the Hidden History of the Right to Attention in Private and Public*, 28 STAN. TECH. L. REV. 120, 156 (2025). Caputo also contends that judicial permissiveness toward governmental time, place, and manner restrictions of speech reveals an implied right to attention that extends beyond land ownership. *Id.* at 166-67. Caputo stops short of concluding that attention is property, observing instead that legal developments during the twentieth century have made attention “more like property or the subject of a right.” *Id.* at 134.

73. WESTLAW, “attention #as property”, 1 result (Jan. 18, 2025) (on file with the *Stanford Law Review*) (filtered by “All State & Federal”, “Secondary Sources”).

74. Denise Howell, *More War*, CYBERSPACE L., Sept. 2006, at 1, 6 n.11 (referencing the website “Attention Trust”).

75. ATTENTION TRUST, <https://perma.cc/2HBZ-HMD9> (archived Dec. 21, 2025).

76. Zoe Sherman, *Pricing the Eyes of Passersby: The Commodification of Audience Attention in U.S. Public Spaces, 1890-1920*, 46 REV. RADICAL POL. ECON. 502, 503 (2014). Political philosopher Karl Polanyi coined this term to describe things that are not naturally or inevitably commodities to be traded in markets but that have been commoditized, like labor or land. Sherman, *supra*; *see* Nancy Fraser, *Can Society Be Commodities All the Way Down? Post-Polanyian Reflections on Capitalist Crisis*, 43 ECON. & SOC. 541, 542-43 (2014).

information as property in a wide range of cases.⁷⁷ Property theorists have long debated whether and when to treat information as legal property.⁷⁸ A recent commercial-database search turned up hundreds of secondary sources on the topic.⁷⁹ So too (if a bit less so) with labor: Both judicial opinions and scholars have expressly and extensively engaged with the question of whether and to what extent labor is property.⁸⁰

Failing to recognize property rights in attention gives a particular shape to attention markets. Central to the notion of property is the “right to exclude.”⁸¹ People (apparently) lack a general property right to exclude the firms that seek to acquire and commodify their attention.⁸² Whether for good or ill, reifying and enforcing such a right would substantially change attention market structure and performance.

What is the upshot of the current approach within this field? Attention intermediaries, for their part, can use both technological and contractual means

77. *E.g.*, *Bd. of Trade of Chi. v. Christie Grain & Stock Co.*, 198 U.S. 236, 251 (1905) (“If then the plaintiff’s collection of information is otherwise entitled to protection, it does not cease to be so, even if it is information concerning illegal acts. The statistics of crime are property to the same extent as any other statistics, even if collected by a criminal who furnishes some of the data.”); *Graham Packaging Co. v. Commonwealth*, 882 A.2d 1076, 1087 (Pa. Commw. Ct. 2005) (holding that software programs constitute “tangible personal property” under a state tax code); *Am. Bus. Info., Inc. v. Egr*, 650 N.W.2d 251, 256 (Neb. 2002) (holding that a variety of information-based products constituted “tangible personal property”).

78. *E.g.*, 1 Raymond Nimmer, *INFORMATION LAW* § 2:2 (West 2025); Jeffrey Ritter & Anna Mayer, *Regulating Data as Property: A New Construct for Moving Forward*, 16 *DUKE L. & TECH. REV.* 220, 248-52 (2018); Christopher Rees, *Tomorrow’s Privacy: Personal Information as Property*, 3 *INT’L DATA PRIV. L.* 220, 220-21 (2013); Jamie Lund, *Property Rights to Information*, 10 *NW. J. TECH. & INTELL. PROP.* 1, 1 (2011); Paul M. Schwartz, *Property, Privacy, and Personal Data*, 117 *HARV. L. REV.* 2055, 2057-58 (2004); Jessica Litman, *Information Privacy/Information Property*, 52 *STAN. L. REV.* 1283, 1288-95 (2000); Pamela Samuelson, *Privacy as Intellectual Property?*, 52 *STAN. L. REV.* 1125, 1127-28 (2000); Lawrence Lessig, *The Architecture of Privacy*, 1 *VAND. J. ENT. L. & PRAC.* 56, 63-65 (1999); Pamela Samuelson, *A New Kind of Privacy? Regulating Uses of Personal Data in the Global Information Economy*, 87 *CALIF. L. REV.* 751, 769-73 (1999) (book review); Jerry Kang, *Information Privacy in Cyberspace Transactions*, 50 *STAN. L. REV.* 1193, 1266 (1998); Carol M. Rose, *The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems*, 83 *MINN. L. REV.* 129, 144-45 (1998); J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 *VAND. L. REV.* 51, 113-15 (1997); Richard S. Murphy, *Property Rights in Personal Information: An Economic Defense of Privacy*, 84 *GEO. L.J.* 2381, 2383-84 (1996); Margaret Jane Radin, *Property Evolving in Cyberspace*, 15 *J.L. & COM.* 509, 518-22 (1996).

79. WESTLAW, “information #as property”, 501 results (Jan. 18, 2025) (on file with the *Stanford Law Review*) (filtered by “All State & Federal”, “Secondary Sources”).

80. *See infra* notes 81-88 and accompanying text.

81. *See, e.g.*, *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979) (calling the right to exclude “universally held to be a fundamental element of the property right”).

82. *See supra* note 70 and accompanying text.

to effectively exclude others from accessing the attention they have acquired;⁸³ they actually enjoy a hybrid de facto-de jure quasi-property right in attention. As we have seen, contract law also grants them favorable treatment vis-à-vis natural persons.⁸⁴ Property rights at least sometimes favor dispersed power and individuals as against coordinated capital.⁸⁵ For example, at least one court has held that employees may have a property interest in continued employment.⁸⁶ And Justice Swayne, dissenting from the majority opinion in the *Slaughter-House Cases*, contended that “[l]abor is property, and as such merits protection. . . . It lies to a large extent at the foundation of most other forms of property”⁸⁷ Taja-Nia Y. Henderson argues with persuasive force that reparations for slavery are warranted on the grounds that the “forced extraction (or theft) of the labor of slaves . . . functioned as a property loss” in violation of the U.S. Constitution’s Takings Clause.⁸⁸ Of course, property rights by no means guarantee fair or just outcomes.⁸⁹ That said, the property gap as to attention likely tipped the balance of power further in favor of concentrated corporate power and away from individual creators and users.

3. Privacy

On the other end of the spectrum, at least as to legal scholarship, lies privacy. The desire to shield some aspect of life from the attention of others is a constitutive element of a privacy interest.⁹⁰ And unwanted, intrusive attention

83. See, e.g., *Terms of Service*, META, <https://perma.cc/7PWE-BHDB> (archived Jan. 11, 2026) (“If we determine, in our discretion, that you have clearly, seriously or repeatedly breached our Terms or Policies, including in particular the Community Standards, we may suspend or permanently disable your access to Meta Company Products, and we may permanently disable or delete your account.”).

84. See *supra* notes 51-69 and accompanying text.

85. Paul, *supra* note 24, at 401-04. Sanjukta Paul insightfully points out that a firm enjoys unique “coordination rights”—for example, the ability to coordinate prices across a given market—unavailable to individual actors who are subject to (among other laws) the Sherman Act’s prohibition on price-fixing. *Id.*

86. *Daniels v. Bd. of Curators of Lincoln Univ.*, 51 S.W.3d 1, 10 (Mo. Ct. App. 2001) (“We find that Mr. Daniels had a protected property interest in his continued employment . . .”).

87. 83 U.S. (16 Wall.) 36, 127 (1873) (Swayne, J., dissenting).

88. Taja-Nia Y. Henderson, *Dignity Contradictions: Reconstruction as Restoration*, 92 CHI.-KENT L. REV. 1135, 1140 (2017).

89. See *Butler v. Perry*, 240 U.S. 328, 333 (1916) (“Conceding for some purposes labor must be considered as property, it is evident . . . that to require [incarcerated people to perform] work on the public roads has never been regarded as a deprivation of either liberty or property.”).

90. Ruth Gavison, *Privacy and the Limits of the Law*, 89 YALE L.J. 421, 428 (1980) (describing the interrelated nature of privacy interests and harms and the attention paid to us by others).

from others is a constitutive element of a privacy harm.⁹¹ Perhaps unsurprisingly, then, the scholarly discourse surrounding privacy law exhibits a relatively well-developed understanding of attention.⁹²

But how have the courts approached attention exchange and costs in privacy decisions? Consider *In re DoubleClick Inc. Privacy Litigation*,⁹³ a widely cited privacy law opinion.⁹⁴ A class of internet users sued DoubleClick, the largest provider of ad-serving tools for online advertisers, on the theory that DoubleClick's placing of cookies onto users' hard drives reduced user privacy by letting DoubleClick leverage users' browsing history, demographics, and more to expose users to targeted advertisements.⁹⁵ Required for a successful claim under the Computer Fraud and Abuse Act (CFAA) is proof of "damage or loss."⁹⁶ The user-plaintiffs argued, in part, that they had incurred "damage or loss" in the form of higher attention costs due to DoubleClick's behavior.⁹⁷

The court dismissed that argument. Since television viewers "do not commonly believe that the economic value of [their] attention is unjustly taken," the court asserted, there is "no reason why Web site advertising should be treated any differently."⁹⁸ This was neoclassical economic theorizing at its worst: An exchange occurred, so it must have been mutually beneficial, with terms voluntarily agreed upon and results that must be fair. Power and factual nuance were waved away. The opinion's premise was descriptively wrong—ads highly targeted at an individual may, in fact, be substantially more distracting than broadcast advertisements.⁹⁹ Advertisements seek to attract targets' stimulus-driven attention.¹⁰⁰ To do so, they must "cut through the clutter" of competing external stimuli.¹⁰¹ Targeted advertisements can sometimes do so

91. See *id.* at 423.

92. See Lawrence Lessig, *Privacy and Attention Span*, 89 GEO. L.J. 2063, 2063-64 (2001) (describing an argument that keeping a fact private may be justified on the grounds that the public would likely not devote enough attention to it, such that disclosure would—in a seeming paradox—lead to less, not more, understanding).

93. 154 F. Supp. 2d 497 (S.D.N.Y. 2001).

94. Citing References for *In re DoubleClick Inc. Privacy Litigation*, 154 F. Supp. 2d 497 (S.D.N.Y. 2001), 1,748 results (Dec. 22, 2025), WESTLAW (on file with the *Stanford Law Review*).

95. *In re DoubleClick*, 154 F. Supp. 2d at 500-03.

96. 18 U.S.C. § 1030(g).

97. *In re DoubleClick*, 154 F. Supp. 2d at 524.

98. *Id.* at 525.

99. Cf. NAT'L CTR. FOR TRANSP. SYS. PRODUCTIVITY & MGMT., DIGITAL ADVERTISING BILLBOARDS AND DRIVER DISTRACTION 1 (2015) ("[T]argeted messages that promote interactivity with the driver are particularly troublesome . . .").

100. See Maurizio Corbetta & Gordon L. Shulman, *Control of Goal-Directed and Stimulus-Driven Attention in the Brain*, 3 NATURE REV. NEUROSCIENCE 201, 201 (2002).

101. Rik Pieters & Michel Wedel, *Attention Capture and Transfer in Advertising: Brand, Pictorial, and Text-Size Effects*, J. MKTG., Apr. 2004, at 36, 36.

more effectively than nontargeted advertisements.¹⁰² The *In re DoubleClick* plaintiffs may well have paid higher attention costs due to DoubleClick's intrusive surveillance.¹⁰³

Was this opinion a harmless one-off? Had it attracted little attention, *In re DoubleClick* might have been just that. But *In re DoubleClick* has been cited more than 1,600 times.¹⁰⁴ Judicial opinions regularly invoke it en route to dismissing plaintiffs' claims.¹⁰⁵ For example, *B.U.S.A. Corp. v. Ecogloves, Inc.* depicts *In re DoubleClick* as standing for the broad proposition that the Computer Fraud and Abuse Act does not apply to all to harms stemming from "the economic value of consumers' attention."¹⁰⁶

What would our digital landscape look like if laws like the CFAA inhibited, or even prevented, surveillance-based business models? It is impossible to know the particulars with any degree of certainty, but attention markets would be structured in substantially different ways. Granting blanket immunity from one of the few federal statutes that might protect online privacy and—importantly—includes a private right of action¹⁰⁷ is yet another way that the law has structured attention markets in a particular direction. It is also another area in which lax antitrust enforcement has played a reinforcing role. The Federal Trade Commission (FTC) in 2007 unconditionally permitted Google—

102. Kai Kaspar, Sarah Lucia Weber & Anne-Kathrin Wilbers, *Personally Relevant Online Advertisements: Effects of Demographic Targeting on Visual Attention and Brand Evaluation*, PLOS ONE, Feb. 15, 2019, at 1, 11; Heejun Lee & Chang-Hoan Cho, *An Empirical Investigation on the Antecedents of Consumers' Cognitions of and Attitudes Towards Digital Signage Advertising*, 38 INT'L J. ADVERT. 97, 110 (2019).

103. Here again, one might expect to encounter objection from those who embrace the informative view of advertising. Under that view, more—and more highly targeted—advertisements are necessarily a boon to their target audience. See, e.g., Kyle Bagwell, *The Economic Analysis of Advertising*, in 3 HANDBOOK INDUS. ORG. 1701, 1716-20 (M. Armstrong & R. Porter eds., 2007) ("An important implication of this view is that advertising may have pro-competitive consequences."). Ramsi A. Woodcock summarizes and adds to the substantial scholarly refutation of the informative view. See Woodcock, *supra* note 9, at 2299 (arguing that advertising's predominant use is to persuade in a world of abundant information). And while the informative view can be refuted on a number of grounds, this can perhaps be done most readily for present purposes by pointing out the low "success" rate of online advertisements. See, e.g., Jackie Lohrey, *The Average Success Rate of Direct Marketing*, CHRON., <https://perma.cc/7W9E-E8P5> (archived Nov. 24, 2025) (stating that search-engine advertisements yielded a "success" rate of 0.2%, with display advertisements even lower at 0.01%). Even if these advertisements serve a purely informative role for individuals who respond positively, the overwhelming majority of the audience still experiences the advertisements as an attention cost.

104. Citing References for *In re DoubleClick Inc. Privacy Litigation*, *supra* note 94.

105. See, e.g., *Schatzki v. Weiser Cap. Mgmt., LLC*, No. 10 Civ. 4685, 2012 WL 2568973, at *2, *4 (S.D.N.Y. July 3, 2012).

106. *B.U.S.A. Corp. v. Ecogloves, Inc.*, No. 05 Civ. 9988, 2009 WL 3076042, at *6 (Sept. 28, 2009).

107. 18 U.S.C. § 1030(g).

which already enjoyed the lion's share of online search—to acquire DoubleClick.¹⁰⁸ Dissenting, then-Commissioner Pamela Jones Harbour warned that “marrying the two [firms’] datasets raises long-term competition questions.”¹⁰⁹ It was not until 2023, with the new antimonopoly movement in power, that the U.S. Department of Justice (DOJ) and a group of states sued Google for using the DoubleClick acquisition as part of a course of exclusionary conduct to dominate multiple online advertising-technology markets.¹¹⁰ Here, as elsewhere, contingent legal choices have consolidated power in the hands of coordinated capital.

4. Tax

Federal tax law has also played a significant role in structuring attention markets. Early tax treatment of advertising was somewhat uneven, but for decades, advertising spending has been immediately 100% deductible as an “ordinary and necessary” business expense in the year of the purchase.¹¹¹ In Revenue Ruling 92-80, the Internal Revenue Service formalized this unique treatment, announcing that it viewed advertising spending as outside the scope of the U.S. Supreme Court’s *INDOPCO, Inc. v. Commissioner*¹¹² decision.¹¹³

But advertising spending is not the same as, say, paying a firm’s monthly utility bill. Advertising very often increases intangible capital. As Mona Hymel points out, “[t]o the extent that current advertising costs provide future benefits to a firm, and thus create intangible capital for the firm, one would expect that these costs should be capitalized [over time] under general tax principles.”¹¹⁴ But instead, firms “almost universally” deduct their full ad spending immediately.¹¹⁵ Thus, corporate consumption of human attention became a tax shelter. Brenton J. Malin and others contend that this is, in fact, a tax expenditure,¹¹⁶ though the

108. Statement of the Federal Trade Commission Concerning Google/DoubleClick 1, Google/DoubleClick, FTC File No. 071-0170 (Dec. 20, 2007), <https://perma.cc/8RK6-NKKY>.

109. Dissenting Statement of Commissioner Pamela Jones Harbour 8-9, Google/DoubleClick, FTC File No. 071-0170 (Dec. 20, 2007), <https://perma.cc/739P-R6WH>.

110. Complaint at ¶ 312, *United States v. Google LLC*, 778 F. Supp. 3d 797 (E.D. Va. 2025) (No. 23-cv-108), 2023 WL 398189.

111. Brenton J. Malin, *Advertising as a Tax Expenditure: The Tax Deduction for Advertising and America’s Hidden Public Media System*, POL. ECON. COMM’N, Sept. 16, 2020, at 2, 2, 4; Mona L. Hymel, *Consumerism, Advertising, and the Role of Tax Policy*, 20 VA. TAX REV. 347, 415 (2000).

112. 503 U.S. 79 (1992).

113. Rev. Rul. 92-80, 1992-2 C.B. 57.

114. Hymel, *supra* note 111, at 415.

115. *Id.* at 415-16.

116. See, e.g., Malin, *supra* note 111, at 7-8.

Treasury Department has chosen not to treat it as such. Whether formally classified as an “expenditure” or not, spending on advertising receives more favorable treatment than, for example, spending on research-and-development efforts, which must be capitalized over time.¹¹⁷ In other words, U.S. tax law creates stronger incentives for corporate attention extraction and consumption than it does for research and development.

This subsidization effect channels corporate activity into attention markets. It also transfers wealth—first to firms that buy attention to advertisements, and ultimately to firms like Alphabet, Amazon, Apple, and Meta that sell user attention to advertisers. Moreover, advertising spending costs will to some extent translate into higher retail prices of goods. The tax subsidy is, as a result, also regressive in nature.¹¹⁸

Tax laws treat attention-extraction activity favorably in other ways as well. Consider that sales of tangible capital assets to business consumers are often subject to sales tax. When Staples sells a printer or photocopier to a local office customer, for example, sales tax is generally collected and returned to the state.¹¹⁹ But attention-extraction firms like Meta and Alphabet collect and return to the state no sales tax on hundreds of billions of dollars of attention sales they make each year.¹²⁰ Moreover, natural persons’ receipt of access to various digital products in exchange for their attention goes untaxed.¹²¹ Supplying labor to an employer in exchange for payment triggers tax obligations on both parties. This asymmetrical treatment channels still more activity into attention markets.

117. *Id.* at 8.

118. See John H. Reilly Jr., *A Welfare Critique of Advertising*, 31 AM. J. ECON. & SOCIO. 283, 288 (1972).

119. See KPMG, U.S. SALES AND USE TAX IN A NUTSHELL 6 (2021), <https://perma.cc/SNT4-AACE>.

120. As of this writing, only one state, Maryland, has imposed a tax on digital advertisements. See Andrea Muse, *Maryland Digital Ad Tax: Pros, Cons, and Trends*, TAX NOTES (Aug. 27, 2024), <https://perma.cc/N2BY-SFST>. Maryland’s tax is not a conventional sales tax collected at the point of sale; instead, it applies to annual firm revenues collected from digital-ad sales. *Id.* It is progressive in nature, with rates increasing as revenues increase. *Id.*

121. See Adam B. Thimmesch, *Transacting in Data: Tax, Privacy, and the New Economy*, 94 DENV. L. REV. 145, 182-83 (2016).

5. Antitrust

On their face, federal antitrust laws apply with equal force to all “trade or commerce,”¹²² subject only to a few limited exceptions.¹²³ This is broad language, and courts have generally construed it accordingly. As the Supreme Court once put it, the Sherman Act “shows a carefully studied attempt to bring within [its scope] every person engaged in business whose activities might restrain or monopolize commercial intercourse”¹²⁴

But for decades, enforcers and judges granted a unique immunity to attention intermediaries operating zero-price business models.¹²⁵ For an early example, consider the DOJ’s behavior following the Telecommunications Act of 1996. The Act itself consciously invited consolidation of power by terminating hard limits on broadcast-radio station ownership.¹²⁶ Before the Act, a single company could own no more than forty stations.¹²⁷ Unsurprisingly, the Act triggered a massive wave of industry consolidation. By 2002, a single firm had acquired over 1,200 stations and dominant audience shares in more than 100 major markets.¹²⁸ Many of the corporate mergers and acquisitions were large

122. See Sherman Act, 15 U.S.C. § 1 (“Every contract, combination . . . , or conspiracy, in restraint of trade or commerce . . . is declared to be illegal.”); *id.* § 2 (“Every person who shall monopolize, or attempt to monopolize . . . any part of . . . trade or commerce . . . shall be deemed guilty of a felony . . .”).

123. See, e.g., Gary R. Roberts, *The Case for Baseball’s Special Antitrust Immunity*, 4 J. SPORTS ECON. 302, 303 (2003) (describing and advocating for the continuation of the antitrust exemption for Major League Baseball).

124. *United States v. Se. Underwriters Ass’n*, 322 U.S. 533, 553 (1944), *superseded by statute*, McCarran-Ferguson Act, 15 U.S.C. §§ 1011-1015 (providing immunity from the Sherman Act for “the business of insurance” to the extent that state regulation exists as to the conduct in question), *as recognized in*, *Barnett Bank of Marion Cnty. v. Nelson*, 517 U.S. 25, 40 (1996).

125. Antitrust commentators have extensively discussed digital markets for some time. See, e.g., Herbert Hovenkamp, *Antitrust and Information Technologies*, 68 FLA. L. REV. 419, 422-24 (2016) (discussing how digital technologies and platforms might complicate antitrust analyses, including in zero-price settings). But they have directed far less time and effort to attention markets. Regulators in non-U.S. jurisdictions have tended to exhibit a relatively more advanced understanding of these markets but still have focused much more heavily on the role of data. See, e.g., AUSTL. COMPETITION & CONSUMER COMM’N, DIGITAL PLATFORMS INQUIRY 7 (2019) (recognizing that attention is important to Google and Facebook’s business models but focusing much more heavily on data concerns); DIGIT. COMPETITION EXPERT PANEL, UNLOCKING DIGITAL COMPETITION 22 (2019) (same for the United Kingdom).

126. Telecommunications Act of 1996, Pub. L. No. 104-104, § 202, 110 Stat. 56, 110 (codified as amended at 47 U.S.C. §§ 303, 533).

127. Newman, *Foundations*, *supra* note 18, at 191.

128. That firm was Clear Channel Communications. Jeff Perlstein, *Clear Channel: The Media Mammoth that Stole the Airwaves*, RECLAIM DEMOCRACY! (Nov. 2002), <https://perma.cc/A6WN-7N6Z>.

enough for automatic review by the DOJ Antitrust Division.¹²⁹ Yet Division leadership expressly did not consider the implications for the listening public, instead focusing solely on whether the transactions would cause harm to advertisers.¹³⁰ Throughout the entire wave of consolidation, the Division did not block a single transaction.

This de facto immunity extended to digital attention markets as well. In *KinderStart.com v. Google*, for example, a district court dismissed a lawsuit alleging that Google had manipulated user-facing search results to monopolize the online search market.¹³¹ The court reasoned that KinderStart “failed to allege that . . . Google sells its search services”¹³² and had failed to cite any authority “indicating that antitrust law concerns itself with competition in the provision of free services.”¹³³ In 2012, the FTC unconditionally cleared Facebook’s acquisition of Instagram, despite copious internal evidence that the deal was monopolistic.¹³⁴ A year later, public reporting indicates that FTC political leadership decided to close a lengthy investigation into Google’s search-related business practices, despite an internal FTC staff recommendation to sue Google for illegal monopolization.¹³⁵ That same year, the FTC let Google buy its direct competitor Waze,¹³⁶ and in 2014 let Facebook acquire its potential threat WhatsApp.¹³⁷ All of this was encouraged by scholars and commentators,

129. See Joel I. Klein, Acting Assistant Att’y Gen., U.S. Dep’t of Just., Speech at the ANA Hotel: DOJ Analysis of Radio Mergers 2 (Feb. 19, 1997), <https://perma.cc/4S7H-F9FG>.

130. Maurice E. Stucke & Allen P. Grunes, *Why More Antitrust Immunity for the Media Is a Bad Idea*, 105 NW. U. L. REV. 1399, 1411 (2011). In a speech to industry participants, then-head of the Antitrust Division Joel Klein described the Department of Justice’s analytical process regarding radio mergers. Klein, *supra* note 129, at 6-8. The Department of Justice’s analysis focused on advertisers. *Id.* at 7-19. Harm to listeners was not considered.

131. No. C 06-2057, 2007 WL 831806, at *1 (N.D. Cal. Mar. 16, 2007).

132. *Id.* at *5.

133. *Id.* It is possible that had KinderStart alleged a market comprising both search results and all Internet advertising, the court would have allowed the claim to proceed, though that is far from certain. See *id.* at *6 (stating that, on the pleadings as filed, a combined search-and-advertising market would likely have exhibited the same deficiencies).

134. See, e.g., Complaint at ¶ 91, *FTC v. Facebook, Inc.*, 560 F. Supp. 3d 1 (D.D.C. June 28, 2021) (No. 20-cv-03590), 2020 WL 14046541 (“Even if some new competitors spring[] up, buying Instagram, Path, Foursquare, etc [sic] now will give us a year or more to integrate their dynamics before anyone can get close to their scale again. Within that time, if we incorporate the social mechanics they were using, those new products won’t get much traction since we’ll already have their mechanics deployed at scale.” (emphasis omitted) (quoting Mark Zuckerberg)).

135. See *The FTC Report on Google’s Business Practices*, WALL ST. J. (Mar. 24, 2015, 7:40 PM ET), <https://perma.cc/KXG7-GP42>.

136. Ron Knox, *FTC Drops Google/Waze Antitrust Concerns but Issues Remain Elsewhere*, GLOBAL COMPETITION REV. (Oct. 23, 2013), <https://perma.cc/R3V9-XRBT>.

137. Alexei Oreskovic, *Facebook Says WhatsApp Deal Cleared by FTC*, REUTERS (Apr. 10, 2014, 1:15 PM PDT), <https://perma.cc/78C8-BRWG>.

including Chicago School luminary Robert Bork,¹³⁸ who offered as a justification that products like online general search and personal social networking are “free” to use.¹³⁹

But attention markets are susceptible to monopolization and the abuse of market power.¹⁴⁰ The DOJ’s decision to allow massive consolidation of local broadcast-radio markets, for example, caused those markets to reach previously unheard-of concentration levels.¹⁴¹ With competitive constraints relaxed, corporate station owners exercised their newfound power by increasing the amount of attention they extracted from listeners by ramping up ad loads and decreasing organic content.¹⁴² And digital markets like online search, online superstores, and personal social networking exhibit a variety of network effects that already facilitate concentration, making the laissez-faire approach applied throughout the 2010s potentially even more harmful.¹⁴³

138. Frank H. Easterbrook, *The Chicago School and Exclusionary Conduct*, 31 HARV. J.L. & PUB. POL’Y 439, 439 (2008) (“Bob Bork is a product of the Chicago School (particularly of Aaron Director) and was its leading exemplar during the 1960s and 1970s, even though living in exile at Yale.”).

139. Robert H. Bork, Opinion, *Antitrust and Google*, CHI. TRIB. (Apr. 6, 2012), <https://perma.cc/9B6M-PUFU> (arguing that antitrust claims against search engines are “unsupportable” because “a search engine, like Google, is free to consumers”); see also Catherine Tucker & Alexander Marthews, *Social Networks, Advertising, and Antitrust*, 19 GEO. MASON L. REV. 1211, 1211 (2012) (“[C]onsumers do not pay for . . . services on most social networking sites.”); Geoffrey A. Manne & Joshua D. Wright, *What’s an Internet Monopolist? A Reply to Professor Wu*, TRUTH ON MKT. (Nov. 22, 2010), <https://perma.cc/2AHP-HNQT> (arguing that “monopolists” in online markets “are really pathetic at extracting profits, as most of them give away their products for free”); Tyler Cowen, Opinion, *Yesterday’s Antitrust Laws Can’t Solve Today’s Problems*, BLOOMBERG (Oct. 5, 2016, 5:30 AM PDT), <https://perma.cc/CUF5-NT8E> (“The major internet companies are a new target of antitrust attention, yet most of them give their main product away for free.”).

140. See Newman, *Foundations*, *supra* note 18, at 193.

141. See Steven T. Berry & Joel Waldfogel, *Do Mergers Increase Product Variety? Evidence from Radio Broadcasting*, 116 Q.J. ECON. 1009, 1010 (2001) (stating that the Telecommunications Act of 1966 facilitated market concentration).

142. See Newman, *Foundations*, *supra* note 18, at 175. At this point, one may encounter the standard objection that advertisements merely convey useful information. Under this view, an increase in airtime devoted to advertisements would represent a benefit—not a cost—to the target audience. See Bagwell, *supra* note 103, at 1716-20 (describing the “informative view” of advertising). This view is refuted at greater length herein, see *supra* notes 98-103 and accompanying text, but one might also simply observe the frequency with which broadcast-radio stations tout their *lack* of commercials as a way to attract listeners. See, e.g., *Jennings v. Radio Station KSCS*, 96.3 F.M, Inc., 708 S.W.2d 60, 61 (Tex. App. 1986) (involving a radio station’s on-air promise always to play at least three songs without commercial interruption); *90 Minute Alternative Anthem Rock Block*, KFOG FM (Dec. 20, 2018), <https://perma.cc/5DDQ-3RBV> (“We asked you what would [improve] KFOG. You said . . . ‘play more music with fewer commercial interruptions!’ That one we can do. Introducing 90 Minute Music Blocks.”).

143. See John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1514-15 (2019).

Here, yet again, a nominally general trade-regulating law has favored attention-extracting intermediaries over their human trading partners. Antitrust law granted a special legal dispensation¹⁴⁴ based on the deployment of a particular business model (the zero-price, advertisement-supported strategy). By doing so, antitrust made that particular model more attractive to firms than alternatives like paid subscriptions, as that model would have been in a world of evenhanded enforcement.¹⁴⁵ Like contract, property, privacy, and tax, U.S. antitrust law has tended to favor the concentration of power in a handful of corporations and channeled competition in attention markets toward particular forms. The relatively recent resurgence of robust enforcement efforts suggests the pendulum can swing back. But with the recent change of administration, whether and to what extent it will actually do so remains to be seen.

B. Cross-Field Comparison: Contract Versus Antitrust

Critical scholars have long recognized that contract law has shaped (or even created) U.S. markets.¹⁴⁶ Antitrust law does so even more explicitly. And yet contract law and antitrust law have treated attention-market activity in seemingly contradictory ways.

Contract cases have generally held that consideration can be nonpecuniary, or put another way, that contract law applies to barter exchanges.¹⁴⁷ A few decisions have even explicitly held that attention, in particular, can serve as consideration. *Jennings v. Radio Station KSCS, 96.3 FM, Inc.* offers a compelling example.¹⁴⁸ In *Jennings*, a person imprisoned in Texas listened to KSCS, a broadcast radio station that promised on-air to “play ‘at least three-in-a-row, or

144. Antitrust doctrine purports to apply uniformly across different types of markets. See John M. Newman, *Procompetitive Justifications in Antitrust Law*, 94 IND. L.J. 501, 502 & n.2 (2019) (observing that most modern antitrust analyses use a single framework regardless of statute or market context).

145. To be sure, this is not the only immunity granted by antitrust law. See, e.g., *Credit Suisse Secs. (USA) LLC v. Billing*, 551 U.S. 264, 267-68 (2007) (holding that certain securities markets are immune from antitrust enforcement); Paul, *supra* note 24, at 401-02 (describing the “firm exemption” for intra-enterprise activity).

146. See, e.g., Gregory Brazeal, *Markets as Legal Constructions*, 91 U. CIN. L. REV. 595, 613 (2023) (critiquing calls for separating the state from economic matters for “seem[ing] to rest on a lack of appreciation for the constitutive role of state-determined, state-backed law,” including contract law, “even in laissez-faire markets”); Nathan B. Oman, *Markets as a Moral Foundation for Contract Law*, 98 IOWA L. REV. 183, 188 (2012) (referring to “contract’s role as a market-sustaining institution”); Tamar Frankel, *The Legal Infrastructure of Markets: The Role of Contract and Property Law*, 73 B.U. L. REV. 389, 390 (1993) (“[T]he institution of markets requires a contract regime . . .”).

147. See, e.g., *Angelou v. African Overseas Union*, 33 S.W.3d 269, 280 (Tex. App. 2000) (holding that both a promise to appear at an awards ceremony and a promise to bestow a nonmonetary award can serve as consideration).

148. 708 S.W.2d 60 (Tex. App. 1986).

we pay you \$25,000.’”¹⁴⁹ Despite its promise, Jennings alleged, KSCS repeatedly played only two songs in a row.¹⁵⁰ Jennings requested the promised \$25,000, the station refused, and Jennings sued for breach of contract.¹⁵¹ KSCS moved to dismiss, arguing that Jennings had not paid anything for its radio programming, so the alleged contract lacked consideration.¹⁵² But the court rejected that defense, observing that Jennings “could have listened to *any* station, but he listened to KSCS.”¹⁵³ By doing so, Jennings gave up his attention, which was what KSCS sought to acquire by making its on-air promise.¹⁵⁴ *Harris v. Time, Inc.*, similarly recognized that individuals’ opening direct-mailer envelopes and thereby “exposing themselves to the sales pitch within” can serve as valid consideration.¹⁵⁵ In both *Jennings* and *Harris*, attention was a constitutive element of the exchange. More recent judicial opinions in cases involving Google and Facebook display similar reasoning. *In re Google, Inc. Privacy Policy Litigation*, for example, states that “[f]ree products are not . . . truly free.”¹⁵⁶ And yet, as we have seen, antitrust enforcers, leading commentators, and at least one court dismissing an antitrust complaint have all endorsed the opposite view, extending a special immunity to corporate attention intermediaries.¹⁵⁷

This apparent conflict raises two questions. First, did antitrust decisionmakers simply make a mistake? They were, for years, heavily focused on price-based effects and analytical tools,¹⁵⁸ so one might well wonder whether they simply failed to understand that markets could exist without positive prices. But consider that the stated lodestar of Chicago School antitrust was

149. *Id.* at 61.

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.* at 62.

154. *See id.*

155. 237 Cal. Rptr. 584, 588 (Ct. App. 1987). This Author owes a debt of gratitude to Stacey Lantagne and Shawn Bayern for pointing out the applicability of this case.

156. No. 12-cv-001382, 2015 WL 4317479, at *2 (N.D. Cal. July 15, 2015). (“Google . . . provides free web-based products to billions of consumers around the world. Free products are not, however, truly free. Google requires massive amounts of [advertising] revenue to sustain itself.”); *see also In re Google, Inc. Priv. Pol’y Litig.*, No. C-12-01382, 2013 WL 6248499, at *13-14 (N.D. Cal. Dec. 3, 2013) (offering reasoning premised on the existence of a contract); *Young v. Facebook, Inc.*, No. 10-cv-03579, 2010 WL 4269304, at *4 (N.D. Cal. Oct. 25, 2010) (“While users do not pay for [its] services directly, Facebook benefits from user activity through the sale of advertising.”).

157. *See supra* Part I.A.5.

158. Lina M. Khan, Note, *Amazon’s Antitrust Paradox*, 126 YALE L.J. 710, 716 (2017) (“[T]he current framework in antitrust—specifically its equating competition with ‘consumer welfare,’ typically measured through short-term effects on price and output—fails to capture the architecture of market power in the twenty-first century marketplace.” (footnote omitted)).

actually output,¹⁵⁹ which can decrease in a zero-price context just as easily as in a positive-price market.¹⁶⁰ And take a close look at the timeline: According to public reporting, rank-and-file FTC attorneys supported bringing a case against Google as early as 2012.¹⁶¹ It was the political appointees who reportedly scuttled that effort,¹⁶² at a time when Silicon Valley tech firms were darlings of those in power in Washington.¹⁶³ Not until 2020, when the political wind had shifted decidedly in the opposite direction, were the first federal antitrust cases against Facebook and Google filed.¹⁶⁴ The overall picture that emerges is that of a policy decision, not a mere mistaken belief about whether attention markets are, in fact, markets.

Second, doesn't a case like *Jennings* tend to favor an individual person over the more powerful firm, rather than the other way around? In that case, the answer is a mostly unqualified "yes." But in *Harris*, the outcome hardly favored the individual, whose harm, the very same opinion went on to say, was de minimis and unworthy of protecting.¹⁶⁵ And keep in mind the highly unusual transactional setting of *Jennings*: Broadcasts are one-way only, a feature that naturally limits the ability of firms to impose extensive terms of service on counterparties. In the multi-directional context of the internet, the use of highly one-sided contract terms (what Andrea Boyack calls "abuse of contract"¹⁶⁶) is ubiquitous. To recognize exchanges as contractual in such settings is, in general, to disempower natural persons and correspondingly empower coordinated capital. According to the complaint in *Young v. Facebook, Inc.*, for example, a Facebook user spoke out against a page that contained a "Prayer for Death" for then-President Barack Obama and was subjected to a barrage of threats and nonconsensual pornography.¹⁶⁷ Facebook deactivated her account, and she sued

159. See John M. Newman, *The Output-Welfare Fallacy: A Modern Antitrust Paradox*, 107 IOWA L. REV. 563, 571-77 (2022).

160. See *id.* at 613-14 (explaining that although a firm with market power in a zero-price market may not be likely to raise prices to zero-price users, such a firm may still exercise market power).

161. See *The FTC Report on Google's Business Practices*, *supra* note 135.

162. See *id.* (explaining that the Commission voted 5-0 to not bring charges); Brody Mullins, Rolfe Winkler & Brent Kendall, *Inside the U.S. Antitrust Probe of Google*, WALL ST. J. (Mar. 19, 2015, 7:38 PM ET), <https://perma.cc/5WUK-2DBQ>.

163. See *Google's White House Meetings*, TECH TRANSPARENCY PROJECT (Apr. 26, 2016), <https://perma.cc/P3B7-CSEP> ("A detailed examination of White House visitor logs reveals the extraordinary access to the Obama White House enjoyed by Google, its top executives and employees.").

164. See Samuel Weinstein, *The Antitrust Cases Against Facebook and Google: In Search of a Smoking Gun*, PROMARKET (Jan. 31, 2021), <https://perma.cc/3DM8-BWUJ>.

165. *Harris v. Time, Inc.*, 237 Cal. Rptr. 584, 589 (Ct. App. 1987).

166. Boyack, *supra* note 66, at 540.

167. No. 10-cv-03579, 2010 WL 4269304, at *1 (N.D. Cal. Oct. 25, 2010).

for breach of contract.¹⁶⁸ The court treated the user’s relationship with Facebook as contractual, but only en route to dismissing her complaint in part because of the contract’s terms, which Facebook had unilaterally drafted: “Facebook [had] expressly disclaimed any duty to protect users’ online safety.”¹⁶⁹ Enforcing contracts that are drafted by a massive corporation’s army of counsel against individual human users will generally tend to consolidate power even further in the hands of the already-powerful.

* * *

Each of these legal fields expressly prides itself on its (supposed) neutrality and uniformity of application. A hard look at each field’s treatment of attention exchange, though, uncovers self-contradictory reasoning, a cavernous coverage gap, unjustified preferential treatment, and even *de facto* and *de jure* immunities. What common threads connect all of this? The law has repeatedly granted special dispensations and privileges that (1) favor attention-extractive business models over alternatives, thereby channeling activity into attention markets; and (2) favor attention-extractive corporate firms over people, thereby further empowering coordinated capital and disempowering individuals.

II. Toward a New Paradigm

The contingent legal moves described above do not reflect basic intuitions of justice. Realpolitik offers a partial explanation for the current state of affairs: Already-powerful, attention-extractive firms have used and are using their power to influence the law’s structuring of attention markets. When one state departed from the status quo to impose a tax on attention sales, for example, it immediately attracted opposition from NetChoice,¹⁷⁰ an industry front group funded by Meta, X Corp., and Google.¹⁷¹ Google had financial ties to the antitrust commentators who advocated for immunity for attention-extraction business models.¹⁷² And so on. Through this lens, we ought not to be surprised

168. *Id.* at *1-2. Young’s complaint included claims other than breach of contract. *Id.* at *1-3.

169. *Id.* at *4.

170. Muse, *supra* note 120.

171. Lily Jamali & Isaiah Poritz, *How NetChoice Became Big Tech’s Ally Against Social Media Regulation*, MARKETPLACE: TECH (Feb. 26, 2024), <https://perma.cc/2DDW-YXNQ>.

172. *See, e.g.*, Bork, *supra* note 139 (disclosing the author’s advisory role to Google); Tucker & Marthews, *supra* note 139, at 1211 n.* (disclosing Google’s funding of an author’s prior research); Manne & Wright, *supra* note 139 (failing to disclose Google’s funding of the authors’ affiliate institutions). Geoffrey A. Manne and Joshua D. Wright disclosed, in a paper originally uploaded to the Social Sciences Research Network on March 30, 2010, that they had received “a grant from the International Center for Law & Economics, which has previously received support from Google.” Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Antitrust Case Against Google*, 34 HARV. J.L. & PUB. POL’Y 171, 171 n.** (2011). Geoffrey A. Manne served as
footnote continued on next page

by treatment that while “variable, opportunistic, and at times, contradictory,”¹⁷³ has been consistent in its undemocratic outcomes.

But there is also a common language running throughout the legal opinions and commentary described above: that of neoclassical law and economics. It distinguishes between “economic” harms (worthy of protection) and “noneconomic” harms (unworthy of protection).¹⁷⁴ It implicitly situates people as rational actors (according to the rules for “rationality” set by orthodox economic theory), a springboard for assuming that exchanges are mutually beneficial.¹⁷⁵ And it elevates to a position of primacy easily quantifiable costs and benefits (like price effects) over other values and effects.¹⁷⁶

A course reversal would be justified on antidomination, pro-democratic grounds. It might also be quite popular. The public expresses deep dissatisfaction with the status quo. For example, most U.S. adults in 2020 believed that digital social media companies wielded “too much” power and influence; this figure climbed to 78% by 2024.¹⁷⁷ And most U.S. parents are at least somewhat concerned that their child, under the age of twelve, spends “too much time in front of screens.”¹⁷⁸ In other words, there appears to be widespread consensus that too much activity has been channeled into attention markets, and too much power has consolidated into a handful of firms that operate astride those markets. The status quo framework has not only allowed but facilitated both developments.

executive director, and Joshua D. Wright was an “affiliate,” of the International Center for Law & Economics during the time when the blog post cited was published. See Geoffrey Manne, LINKEDIN, <https://perma.cc/3FSJ-KSE7> (archived Nov. 25, 2025); Josh Wright, LINKEDIN, <https://perma.cc/W7DL-3MRP> (archived Nov. 25, 2025).

173. Mika Viljanen, Mikko Rajavuori & Tal Kastner, *Introduction: Imagining Post-Neoliberal Regulatory Subjectivities*, 23 IND. J. GLOB. LEGAL STUD. 377, 377 (2016).

174. See Britton-Purdy et al., *supra* note 23, at 1796 (“[Law and economics] argued for what we might call ‘market supremacy,’ or the *necessary* subordination of the political to the economic.”).

175. See, e.g., *In re DoubleClick, Inc. Priv. Litig.*, 154 F. Supp. 2d 497, 525 (S.D.N.Y. 2001) (“We do not commonly believe that the economic value of our attention is unjustly taken from us when we *choose* to watch a television show or read a newspaper with advertisements We see no reason why Web site advertising should be treated any differently.” (emphasis added)).

176. See *supra* Part I.A.5 (describing institutional decisions to permit market consolidation).

177. MONICA ANDERSON, PEW RSCH. CTR., AMERICANS’ VIEWS OF TECHNOLOGY COMPANIES 4 (2024), <https://perma.cc/H5QT-67XU>.

178. BROOKE AUXIER, MONICA ANDERSON, ANDREW PERRIN & ERICA TURNER, PEW RSCH. CTR., PARENTING CHILDREN IN THE AGE OF SCREENS 3 (2020), <https://perma.cc/JWU6-8MEU>.

A. The Need for a Multidisciplinary Approach

A more robust paradigm is needed. For an example of the sort of action possible with a relatively unfettered regulatory approach, consider the Highway Beautification Act of 1965.¹⁷⁹ Along with the Wilderness Act, passed a year earlier,¹⁸⁰ the Highway Beautification Act explicitly aimed to carve out certain spaces from market-based activity altogether, on the grounds that our collective attention would be better for it.¹⁸¹ The Highway Beautification Act's primary purpose was to remove advertising from alongside the federal interstate highway system.¹⁸² Upon signing it into law, President Lyndon B. Johnson observed, "We have placed a wall of civilization between us and the beauty of our countryside. In our eagerness to expand and improve, we have relegated nature to a weekend role, banishing it from our daily lives. I think we are a poorer nation as a result."¹⁸³

Johnson was offering a heterodox justification for legal action to push back on market-making activity. This would have been doubly antithetical to the paradigm that characterized most U.S. policymaking for the several decades that followed.¹⁸⁴ A neoliberal regulatory enterprise seems to have no means of comprehending, let alone implementing, ethical, moral, or aesthetic goals.¹⁸⁵

179. Highway Beautification Act of 1965, Pub. L. No. 89-285, 79 Stat. 1028 (codified as amended in scattered sections of 23 U.S.C.).

180. See Nathalie Massip, *The 1964 Wilderness Act, from "Wilderness Idea" to Governmental Oversight and Protection of Wilderness*, MIRANDA, 2020, at 1 (describing the history and aftermath of the Wilderness Act).

181. See Craig J. Albert, *Your Ad Goes Here: How the Highway Beautification Act of 1965 Thwarts Highway Beautification*, 48 U. KAN. L. REV. 463, 476-77 (2000) (describing the effort to shift public discourse away from profit and revenue generation and toward aesthetic values). Craig J. Albert argues that the actual design and mechanisms of the Act were deeply flawed, such that it has, in practice, turned out to be a statute "at war with itself." *Id.* at 465.

182. 1 PATRICIA E. SALKIN, *AMERICAN LAW OF ZONING* § 26:2 (West 2025).

183. *Id.* (quoting *How the Highway Beautification Act Became a Law*, FED. HIGHWAY ADMIN., <https://perma.cc/B7UB-8K6U> (last updated June 27, 2017)). Certainly, Congress was also mindful of the Act's financial costs and benefits; it directed the Secretary of Transportation to conduct a study of the "economic impact" on various stakeholders. Highway Beautification Act § 302. But the study was to *follow* in the wake of the Act's passage, not to serve as a precondition for it. See *id.*

184. See David Singh Grewal & Jedediah Purdy, *Introduction: Law and Neoliberalism*, 77 LAW & CONTEMP. PROBS. 1, 1 (2014) (describing the neoliberal worldview that "reshaped most important domains of public and private life"); see also Lina M. Khan, *The End of Antitrust History Revisited*, 133 HARV. L. REV. 1665 & n.37 (2020) (book review) (critiquing the consensus that prevailed from roughly 1980 until 2020 in antitrust).

185. See generally Dani Rodrik, *Rescuing Economics from Neoliberalism*, BOS. REV. (Nov. 6, 2017), <https://perma.cc/3VFP-4SEE> ("[Neoliberalism] denotes a preference for markets over government, economic incentives over social or cultural norms, and private entrepreneurship over collective or community action."); *id.* ("Much of our
footnote continued on next page

Nor does it conceive of anything like a collective judgment as to how attention should be consumed, instead preferring to let “the market” (or “market forces”) decide what’s best.

Moving beyond the status quo requires a rich(er) account of the various values that are implicated by attentional questions. This account cannot be exclusively economic in nature. Neoclassical economics, as a mode of thought, generally finds nothing objectionable in the prospect of commodification.¹⁸⁶ Locating a meaningful path forward will require rediscovering a way of thinking and talking about attention—an attentional ethic—that is less rigid, more heterodox, and more participatory than the neoliberal fixation with quantified cost-benefit analysis would permit.¹⁸⁷

Developing a robust toolkit for (re)structuring attention markets will necessarily be cross-disciplinary, incorporating not only economics but also cognitive neuroscience, psychology,¹⁸⁸ and philosophy, as well as sociology, public health, and the work of technologists.¹⁸⁹ The end goal must be an attentional ethic capable of accounting for both our individual and collective well-being in an increasingly interconnected, information-flooded world.

To be sure, a broader and different attentional ethic is no guarantee of fair outcomes. Power and purpose still, as always, matter. As a cautionary tale, consider *Berman v. Parker*, a 1954 U.S. Supreme Court decision. The *Berman* Court unanimously affirmed the government’s ability to use eminent domain so long as the project in question serves a “public use.”¹⁹⁰ Justice Douglas, writing for the Court, defined that concept in a heterodox way: “The concept of the public welfare is broad and inclusive. The values it represents are spiritual as well as physical, aesthetic as well as monetary.”¹⁹¹ But the project in question—part of the midcentury push for “urban renewal”—displaced low-income

contemporary policy discussion remains infused with norms and principles supposedly grounded in *homo economicus*.”)

186. See Radin, *supra* note 78, at 510 (“When we are in the Benthamite mode, we find nothing wrong with universal commodification.”).

187. See James Goodwin, *A Post-Neoliberal Regulatory Analysis for a Post-Neoliberal World*, LAW & POL. ECON. PROJECT (Oct. 14, 2021), <https://perma.cc/8GGD-VRPR> (“Building a new regulatory system befitting our vision of a post-neoliberal America requires a formal rejection of prevailing cost-benefit analysis in favor of a radically different approach—one that invites public participation, permits open and fair contestation of competing values at the heart of policy debates, and recognizes and honors our social interdependencies.”).

188. Psychologists were, after all, early pioneers in studying attention-extraction techniques. D. Graham Burnett, *Fracking Eyeballs*, ASTERISK (Oct. 2023), <https://perma.cc/UFJ4-ECBL>.

189. Burnett & Mitchell, *supra* note 14, at 5.

190. 348 U.S. 26, 31, 33 (1954) (“[T]he means of executing the project are for Congress and Congress alone to determine, once the public purpose has been established.”).

191. *Id.* at 33 (citation omitted).

residents, most of them members of historically marginalized communities.¹⁹² And the purported justification (or, less charitably, excuse) for doing so—that a portion of the new housing to be built would be rent-controlled—was walked back after developers sought permission to charge “market” prices instead.¹⁹³

B. Against Private Attention Rights as an Organizing Principle

It may be tempting to center “attention rights” for individuals as a cornerstone for reform efforts. In the somewhat analogous sphere of information privacy, Shoshana Zuboff describes “surveillance capitalism” as an “expropriation of critical human rights,”¹⁹⁴ casting a rights violation as the core problem to be addressed. Anuj Puri offers a moral philosophy argument for a “right to attentional privacy.”¹⁹⁵ Jasper L. Tran argues for a bundle of (admittedly “as-yet-poorly-defined”) negative legal attention rights.¹⁹⁶ Caputo contends that recognizing a right to attention “might lead to a better path forward” than previous regulatory efforts meant to protect attention from unwanted intrusions.¹⁹⁷ Certainly, the fight for “rights”—voting, reproductive, etc.—has a deep resonance in the U.S. reform tradition. And orthodox law and economics literature often prescribes the assignment of private property rights as a cure-all for various societal ills.¹⁹⁸

Do attentional rights (property or otherwise) already exist? One extant scholarly effort to describe the current legal status of attention declares that “[w]e own and are entitled to our attention because attention is a property right.”¹⁹⁹ This is so, the reader is told, because “attention has value, and its value

192. Meaghan Kacmarcik, *The Cost of Urban Renewal in Southwest DC*, WETA: BOUNDARY STONES (updated Feb. 15, 2025), <https://perma.cc/BT5G-AQPQ>.

193. *Id.* And execution matters: At least one critic has argued that the Highway Beautification Act was, however nobly intended, deeply flawed in practice. Albert, *supra* note 181, at 465.

194. ZUBOFF, *supra* note 31, at vii. There is a vast literature on the notion of private-property rights in information. See, e.g., Mark A. Lemley, Comment, *Private Property*, 52 STAN. L. REV. 1545, 1546 n.5 (2000) (collecting sources).

195. Anuj Puri, *The Right to Attentional Privacy*, 48 RUTGERS L. REC. 206, 209 (2021).

196. Tran, *supra* note 72, at 1048-49.

197. Caputo, *supra* note 72, at 171.

198. See, e.g., Chris Arsenault, *Property Rights for World's Poor Could Unlock Trillions in 'Dead Capital': Economist*, REUTERS (July 31, 2016, 9:15 PM PDT), <https://perma.cc/N8WW-8XNM> (“Legally protected property rights are the key source of the developed world’s prosperity, and the lack thereof is the reason why many nations remain mired in poverty, [economist Hernando] de Soto argued.”).

199. Tran, *supra* note 72, at 1027. Margaret Jane Radin briefly raised the idea in a 1996 essay, offering a rather conclusory normative rejection of the notion without a descriptive analysis. Radin, *supra* note 78, at 517 (“Could we make our attention property? Could we meter our attention and make information providers pay us to listen to them?”). In the
footnote continued on next page

is increasing.”²⁰⁰ Yet surely those two conditions alone neither establish nor justify private property rights. We value a great many things (e.g., clean air) that are not “private property” in a legal sense, and many of us recoil from the notion of private ownership over these goods (e.g., provision of water services and sanitation).

Caputo more convincingly contends that landowners enjoy a “relatively narrow” right to attention that can be vindicated via private nuisance lawsuits.²⁰¹ Moreover, judicial treatment of governmental time, place, and manner restrictions implicitly rests in part on an even narrower public right to attention.²⁰² To the extent that some limited rights to attention already exist, they might seem attractive as a toehold for expansion.

But a central focus on reifying personal rights in attention could all too easily become counterproductive. Extending the concept and language of “rights” to the realm of attention carries a significant downside risk. As Mary Ann Glendon trenchantly observes, “rights talk” in the United States took on a number of unusual characteristics in the late twentieth century:

Our current American rights talk is . . . set apart from rights discourse in other liberal democracies by its starkness and simplicity, its prodigality in bestowing the rights label, its legalistic character, its exaggerated absoluteness, its hyperindividualism, its insularity, and its silence with respect to personal, civic, and collective responsibilities.²⁰³

Let us begin with “its hyperindividualism.” Attention exchange is an inherently social act—one with complex societal implications.²⁰⁴ Recognizing the existence of property rights, however, tends to have a crowding-out effect on noncommodified values and ideas.²⁰⁵ Notions of common or social goods—

introduction to his philosophical examination of attention, Matthew B. Crawford calls briefly for the recognition of a “*right not to be addressed*,” but without confronting the proposed nature, scope, or theoretical underpinnings of this prescription. CRAWFORD, *supra* note 20, at 13. In addition to its vagueness, Crawford’s invocation of a rights-based approach is also incongruous with the rest of his work. Much of his claim rests on his vision of an “attentional commons,” an idea at odds with a rights-based framework. *Id.* at 11, 251-52.

200. Tran, *supra* note 72, at 1029 (footnote omitted).

201. Caputo, *supra* note 72, at 156.

202. *Id.* at 166-67.

203. GLENDON, *supra* note 36, at x.

204. Recent philological work on the ancient Greek concept of “deliberation” can be read to suggest that paying attention during public assemblies was actually an important aspect of democratic processes in the cradle of democracy. See Daniela Cammack, *Deliberation in Ancient Greek Assemblies*, 115 CLASSICAL PHILOLOGY 486, 511, 518 (2020) (“[D]ēmos denoted those who listened, deliberated, and voted collectively—and thus, in democracies, ruled over the rest of the *polis*, including over their own advisers.”).

205. Radin, *supra* note 78, at 517 (“In a world of commodified attention, it will be harder to find a way to parcel out attention to noncommodified political and social ideas . . .”).

and collective or civic responsibilities—often become irrelevant.²⁰⁶ Hyperindividualized rights-based discourse is largely incapable of accounting for the complex mix of individual and communal values at play vis-à-vis attention markets.

Glendon points also to “exaggerated absoluteness.” First Amendment jurisprudence, in particular, has long been trending toward an absolutist conception of speech rights.²⁰⁷ This sort of right poses an existential threat to egalitarian-minded reform efforts.²⁰⁸

Moreover, rights-based discourse often leads to an intractable standstill.²⁰⁹ Attention rights would necessarily be pitted against speech rights, seem especially prone to doing so.²¹⁰ Most speakers speak hoping that someone will pay attention to their speech; attention is, in some ways, the flipside of speech. Suppose an individual were to assert their attention rights against a company that wished to assert its commercial-speech rights by advertising. This clash of rights-versus-rights has no obvious solution.

The absolutist approach to speech rights might require subjugation of the attention rights,²¹¹ in which case the latter would be meaningless. Alternatively, suppose attention rights were able to attain the same vaunted status currently afforded to speech rights. In that case, the attention rights would lock into an endless clash of rights-versus-rights in which solutions are unlikely.²¹²

206. *See id.*

207. Amanda Shanor, *The New Lochner*, 2016 WIS. L. REV. 133, 205 (2016). Mary Anne Franks invokes a distinction between the individualistic notion of “civil liberties” and the more collective notion of group “civil rights.” MARY ANNE FRANKS, *THE CULT OF THE CONSTITUTION* 12 (2019). This Article can be thought of as focusing its critique on the former, though it employs the broader term “rights.”

208. *See* Shanor, *supra* note 207, at 200 (“The new *Lochner* . . . displaces the policy preferences and the mechanisms for intelligent policy-preference development of a broader public with those of a smaller elite.”).

209. *See* GLENDON, *supra* note 36, at x (“Discourse about rights has become the principal language that we use in public settings to discuss weighty questions of right and wrong, but time and again it proves inadequate, or leads to a standoff of one right against another.”).

210. Analogous problems arise when privacy is conceptualized in the “liberty-based language of human rights discourse.” Julie E. Cohen, *Turning Privacy Inside Out*, 20 THEORETICAL INQUIRIES L. 1, 1-2 (2019).

211. *Cf.* David Burnett, Note, *Judging the Aesthetics of Billboards*, 23 J.L. & POL. 171, 173 (2007) (“In the earliest billboard cases, courts sometimes struck down municipal ordinances which restricted outdoor advertising, deferring to the private property rights of landowners and advertisers.”); Shanor, *supra* note 207, at 133 (explaining the dangers of absolutist speech rights).

212. *See* GLENDON, *supra* note 36, at x (“In the home of free speech, genuine exchange of ideas about matters of high public importance has come to a virtual standstill.”); *id.* at xi (“A penchant for absolute formulations (‘I have the right to do whatever I want with my property’) promotes unrealistic expectations and ignores both social costs and the rights of others.”).

Tellingly, when speech cases more directly pit the rights of speakers against the rights of listeners, the decisions become—even according to a proponent of attention rights as an organizing mechanism—“contested,” and “without a clear . . . answer.”²¹³ Solutions favoring noncoordinated people over firms that enjoy (other) coordination rights would be especially rare. Given the difficulties of collective action in this context, even an orthodox law-and-economics analyst would be forced to admit that evenhanded outcomes would be unlikely.²¹⁴

The commodification of attention raises complex political questions involving both communal and individual values. Such questions require society-level resolution.²¹⁵ Introducing rights talk into the mix is more likely to result in an impoverishment, rather than an enrichment, of the politico-legal deliberative processes that might reshape market structure and performance in more equitable ways.²¹⁶

III. Application: Attention and Attention Capitalism

Attention is complex. A substantial portion of orthodox law-and-economics literature, the nature of which is relatively unimportant to the analysis, discusses assets.²¹⁷ But understanding the nature and effects of attention markets requires, as an initial matter, understanding some fundamental attributes of attention itself. And neoclassical economic theory

213. Caputo, *supra* note 72, at 167. Even the cases that Caputo’s research identifies as supporting limited attention rights do not clearly map onto today’s attention markets. These cases involve nondigital stimuli (primarily in the form of loud noises). *See id.* at 162–64. They do not, generally, involve situations in which users at least formally consented to the relevant interaction, as users of digital products generally do. *Id. But see id.* at 170 (arguing that information asymmetries and addictive technology make it “at least plausible” that users do not give “true consent”). Yet these are the situations that will present more direct, and therefore more likely intractable, speech-versus-attention conflicts.

214. *See generally* R. H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960) (arguing that under certain highly artificial conditions, assigning legal rights will always lead to optimal outcomes).

215. GLENDON, *supra* note 36, at xi (“A tendency to frame nearly every social controversy in terms of a clash of rights (a woman’s right to her own body vs. a fetus’s right to life) impedes compromise, mutual understanding, and the discovery of common ground.”).

216. *Cf.* Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995, 1034 (2014) (describing the intellectual cul-de-sac to which arguments about absolutist commercial free-speech rights inevitably lead).

217. Colleen Baker, *Eliminating “Widgets”*, BUS. L. PROF. BLOG (Dec. 2, 2013), <https://perma.cc/Q58P-PEHB> (“For a long time, law, business, and economics professors have used ‘widgets’ in their hypotheticals and examples.”).

generally assumes away cognitive limits and coercion.²¹⁸ Even some law-and-economics commentary that concedes the possibility of choice overload still concludes that a “free market” will make the “calculations” necessary to provide consumers with an optimal number of choices.²¹⁹ The limits of that way of looking at the world are self-evident. Instead of relying primarily on neoclassical economic theory, the following discussion—implementing the multidisciplinary approach called for above—draws primarily from psychology and neuroscience.

Definitions of “attention” vary.²²⁰ In general, though, attention is applying the mind *to something*,²²¹ which as a corollary involves *not* applying the mind to everything else.²²² We go about the process of paying attention in two different ways. One is *goal-directed* (or “top-down”) attention. Here, attention is directed by internal cognitive factors like knowledge, expectations, or goals.²²³ At the other end of the spectrum is *stimulus-driven* (or “bottom-up”) attention. Here, external stimuli attract attention.²²⁴ To illustrate the difference, imagine a person trying to find a new restaurant. After entering a query into an online search engine, they begin to scan and analyze the results—this is goal-directed attention.²²⁵ Now, imagine their eyes involuntarily dart over to a banner ad on the right side of the screen. This is stimulus-driven attention.²²⁶

A. Cognitive Overload and Depletion

Our attention is not infinite. Implicit within the standard neoclassical assumption of perfect rationality is the related assumption that humans possess

218. Amanda P. Reeves & Maurice E. Stucke, *Behavioral Antitrust*, 86 IND. L.J. 1527,1549 (2011) (describing the impact of neoclassical economics’ assumption of rational behavior on antitrust doctrine); Warren J. Samuels, *On the Nature and Existence of Economic Coercion: The Correspondence of Robert Lee Hale and Thomas Nixon Carver*, 18 J. ECON. ISSUES 1027, 1028 (1984) (“Carver’s neoclassical position generally maintains that coercion is either fundamentally absent from or severely constrained in a market economy, especially one that is competitive and exhibits relatively easy entry.”).

219. See Neil W. Averitt & Robert H. Lande, *Using the “Consumer Choice” Approach to Antitrust Law*, 74 ANTITRUST L.J. 175, 192-93 (2007).

220. See Puri, *supra* note 195, at 207 (collecting sources).

221. *Attention*, MERRIAM-WEBSTER, <https://perma.cc/VJ45-U4ZF> (archived Nov. 26, 2025) (defining attention as “the act or state of applying the mind to something”).

222. *Attention*, BRITANNICA, <https://perma.cc/K7UR-BEAV> (archived Nov. 26, 2025) (defining attention “in psychology, [as] the concentration of awareness on some phenomenon to the exclusion of other stimuli”).

223. Corbetta & Shulman, *supra* note 100, at 201.

224. *Id.*

225. *Cf. id.* at 207 (using the example of a person “searching for a friend wearing a red hat in a crowd”).

226. *Cf. id.* at 207-08 (using the example of “flashing a light at a location”).

unlimited attention.²²⁷ But our attention is scarce. As an initial matter, it is limited to our waking hours in a given day.²²⁸ And attention can also run out due to at least two other causes. The first is the “cost of thinking.”²²⁹ Our available cognitive capacity can be overloaded (burdened with too heavy a cognitive load at a given point in time²³⁰) or depleted via use over time.²³¹ In other words, like an automobile engine, human minds can overheat; they can also, to simplify,²³² run out of fuel.

Second, sheer volume or quantity of information can overwhelm our cognitive capacity at a given point in time.²³³ George A. Miller famously demonstrated, for example, that most humans can receive, process, and remember no more than seven (plus or minus two) pieces of information at one time.²³⁴ Under conditions of overload, our ability to make decisions changes.²³⁵ We tend to abandon slow, effortful, deliberative thinking entirely in favor of

227. So long as a number of conditions are met—including that all market participants behave according to a set of (economist-defined) rules that define “rationality”—price-theoretic models of perfect competition suggest that total surplus (“welfare”) will be maximized. See FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT 76-80 (1921) (listing requisite conditions for perfect competition).

228. See, e.g., CRAWFORD, *supra* note 20, at 11 (“[A]ttention is . . . a resource—a person has only so much of it.”); Wu, *Blind Spot*, *supra* note 18, at 781 (“[W]e exist in an environment limited by time—168 hours per week.”).

229. Jonathan Levav, Mark Heitmann, Andreas Herrmann & Sheena S. Iyengar, *Order in Product Customization Decisions: Evidence from Field Experiments*, 118 J. POL. ECON. 274, 276 (2010); see Herbert A. Simon, *A Behavioral Model of Rational Choice*, 69 Q. J. ECON. 99, 101 (1955).

230. Paul Chandler and John Sweller appear to have been the first to use the term “cognitive load” to refer to the burden a given mental task places on cognitive capacity. See Paul Chandler & John Sweller, *Cognitive Load Theory and the Format of Instruction*, 8 COGN. & INSTR. 293, 294 (1991).

231. See Linford, *supra* note 10, at 161 (“Psychologists recognize that attention is a finite resource, one that we constantly spend but cannot stockpile.”).

232. Recent research suggests that the observable effects of depletion arise from our bodies’ conservation efforts, not “running out” of energy. Roy F. Baumeister, Nathalie André, Daniel A. Southwick & Dianne M. Tice, *Self-Control and Limited Willpower: Current Status of Ego Depletion Theory and Research*, 60 CURRENT OP. PSYCH., Dec. 2024, at 1, 1.

233. The text accompanying notes 227-51 traces its roots to an early stage working draft this Author presented at the 2020 Next Generation of Antitrust, Data Privacy and Data Protection Scholars Conference. That draft later spun off into multiple projects, one of which eventually became this Article. Although that early-stage working draft was not formally published and did not undergo any editing, it was posted online by the conference organizers. John M. Newman, *Antitrust in Attention Markets* 3 (n.d.) (unpublished manuscript), <https://perma.cc/5JLE-A27B> (archived Nov. 26, 2025).

234. See George A. Miller, *The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information*, 63 PSYCH. REV. 81, 90 (1956).

235. See Andrew E. Taslitz, *Information Overload, Multi-Tasking, and the Socially Networked Jury: Why Prosecutors Should Approach the Media Gingerly*, 37 J. LEGAL PRO. 89, 95-96 (2012).

automatic, unconscious mental processes.²³⁶ As a result of this shift from analytic to purely associative cognition, people are more likely to engage in stereotyping, including racial stereotyping.²³⁷ Efforts to search out sufficient information to make evaluations decrease.²³⁸ Self-control weakens.²³⁹ “Priming” strategies become more effective.²⁴⁰ To the extent that priming is used for persuasion,²⁴¹ we also become more susceptible to such persuasion.²⁴² In general, then, the literature suggests that overload conditions can make individuals easier to take advantage of and more likely to engage in antisocial behavior.²⁴³

Another substantial body of research indicates that cognitive capacity can also deplete through use over time. Complex decisions that require sifting through and assessing large amounts of information deplete cognitive resources more quickly than decisions made in lower-information environments.²⁴⁴ As with cognitive overload, the depletion of cognitive capacity impacts subsequent decisionmaking. In psychology literature, “ego depletion” describes the theory,

-
236. These systems are often called “System 1” (automatic, unconscious) and “System 2” (slow, effortful), following the pioneering work of Daniel Kahneman. See DANIEL KAHNEMAN, *THINKING, FAST AND SLOW* 59 (2011); Daniel Kahneman, *Maps of Bounded Rationality: Psychology for Behavioral Economics*, 93 AM. ECON. REV. 1449, 1450-51 (2003).
237. See Marianne Bertrand, Dolly Chugh & Sendhil Mullainathan, *Implicit Discrimination*, 95 AM. ECON. REV. (SPECIAL ISSUE) 94, 94-95 (2005); Daniël H. J. Wigboldus, Jeffrey W. Sherman, Heather L. Franzese & Ad van Knippenberg, *Capacity and Comprehension: Spontaneous Stereotyping Under Cognitive Load*, 22 SOC. COGN. 292, 304 (2004); see also Demetria D. Frank, *The Proof Is in the Prejudice: Implicit Racial Bias, Uncharged Act Evidence & the Colorblind Courtroom*, 32 HARV. J. RACIAL & ETHNIC JUST. 1, 20 (2016) (collecting sources on “particular stimuli and the associated attitudes or beliefs about those stimuli”).
238. See Omar Merlo, Bryan A. Lukas & Gregory J. Whitwell, *Heuristics Revisited: Implications for Marketing Research and Practice*, 8 MKTG. THEORY 189, 192 (2008).
239. See Haeran Jae, *Cognitive Load and Syntactic Complexity of Printed Advertisements: Effects on Consumers’ Attitudes*, MKTG. MGMT. J., Spring 2011, at 152, 154 (“For example, under cognitive-load versus low-load condition, chronic dieters could eat significantly more calories than they intend to consume because their attention is distracted from monitoring their intake.” (citing Andrew Ward & Traci Mann, *Don’t Mind if I Do: Disinhibited Eating Under Cognitive Load*, 78 J. PERS. & SOC. PSYCH. 753, 753-63 (2000))).
240. See Shira Baror & Moshe Bar, *Associative Activation and Its Relation to Exploration and Exploitation in the Brain*, 27 PSYCH. SCI. 776, 786 (2016).
241. Erin J. Strahan, Steven J. Spencer & Mark P. Zanna, *Subliminal Priming and Persuasion: Striking While the Iron Is Hot*, 38 J. EXP. SOC. PSYCH. 556, 556 (2002).
242. Going a step further, Jake Linford suggests that humans may be “less capable of successfully completing [an information] search, and perhaps of distinguishing fact from fiction.” Linford, *supra* note 10, at 172 (citing Petra Persson, *Attention Manipulation and Information Overload* 15 (Nat’l Bureau of Econ. Rsch., Working Paper No. 23823, 2017)).
243. See, e.g., Maria Sicilia & Salvador Ruiz, *The Effects of the Amount of Information on Cognitive Responses in Online Purchasing Tasks*, 9 ELEC. COM. RSCH. & APPLICATIONS 183, 183 (2010); Simona Botti & Sheena S. Iyengar, *The Dark Side of Choice: When Choice Impairs Social Welfare*, 25 J. PUB. POL’Y & MKTG. 24, 24, 27 (2006).
244. See Levav et al., *supra* note 229, at 276.

supported by empirical evidence, that exercising willpower eventually exhausts our supply, rendering us more likely to make choices that we would not make under optimal conditions.²⁴⁵ A few replication attempts called into question these specific findings, but both a closer look at those attempts and subsequent work tend to confirm the effect's existence.²⁴⁶ Closely related is the concept of "decision fatigue," which holds that the very act of making decisions can, over time, reduce the quality of the decisions being made.²⁴⁷ Again, there is a cost entailed by thinking.²⁴⁸

When cognitive capacity is depleted, we become more persuadable—more likely to rely on whatever default option has been preselected for us. For example, a field study subjected car buyers to decision fatigue by presenting them with a vast number of options.²⁴⁹ The test subjects ultimately spent over a thousand dollars more than nonfatigued buyers.²⁵⁰ As such experiments indicate, overexertion can deplete the quality of the attention we are able to pay to stimuli and decisionmaking, resulting in substantial real-world consequences.

Firms focused on attention extraction use a variety of tools to grab and hold users' attention more often and for longer periods of time. For example, social media platforms can dispense activity notifications (of, for example, "likes" from other users) at variable intervals to "magnif[y] the intensity of the [poster's] cravings" for logging on to the platform.²⁵¹ Another way social media platforms have leveraged the power of intermittent rewards to hold users' attention is by enabling their users to scroll infinitely through a content feed.²⁵²

B. Commoditization via Extraction and Exchange

Understanding and responding to attention markets requires a foundational understanding of the ways in which market actors seek to acquire and use human attention. Attention is not created for the purpose of market exchange; it is part of what makes us human—inseparable from, and constitutive

245. For the seminal article, see Roy F. Baumeister, Ellen Bratslavsky, Mark Muraven & Dianne M. Tice, *Ego Depletion: Is the Active Self a Limited Resource?*, 74 J. PERS. & SOC. PSYCH. 1252, 1252 (1998).

246. See Baumeister et al., *supra* note 232, at 3-4 (collecting and surveying sources).

247. See John Tierney, *Do You Suffer from Decision Fatigue?*, N.Y. TIMES MAG. (Aug. 17, 2011), <https://perma.cc/W2UV-R8WX>.

248. Levav et al., *supra* note 229, at 276.

249. *Id.* at 282-91.

250. *Id.* at 290.

251. James Niels Rosenquist, Fiona M. Scott Morton & Samuel N. Weinstein, *Addictive Technology and Its Implications for Antitrust Enforcement*, 100 N.C. L. REV. 431, 446 (2022).

252. See AM. PSYCH. ASS'N, POTENTIAL RISKS OF CONTENT, FEATURES, AND FUNCTIONS 2 (2024), <https://perma.cc/B7QY-CFRN>.

of, the human condition²⁵³ and the autonomous self.²⁵⁴ But attention has increasingly been pulled into market settings, part of a broader expansion of market mechanisms into formerly nonmarket areas of life.²⁵⁵ Attention has become what Karl Polanyi would call a “fictitious commodity,” an item not produced specifically for sale that has nevertheless become the subject of marketplace activity.²⁵⁶

At the core of this activity lies the advertisement—the hyperlinked display ad next to online search results, the sponsored post appearing in a social feed, the looped video auto-playing on a screen installed in the fuel pump at a petrol station, or the back seat of a taxicab.²⁵⁷ To understand attention markets, we can begin by distinguishing what marketing literature refers to as “unsolicited” from “solicited” advertisements.

Though exact definitions vary, advertisements are generally considered “unsolicited” when they are transmitted to a person without that person’s invitation or permission.²⁵⁸ Common examples include email spam and telemarketing calls.²⁵⁹ When attention-seeking entities deliver unsolicited advertisements, they are engaged in what this Article calls “pure attention exploitation.” Absent a voluntary exchange, even orthodox law and economics admits that there is no reason to assume a mutually beneficial relationship.²⁶⁰ Attention exploitation is often quite frustrating to its targets,²⁶¹ who may correctly perceive that they are being taken advantage of and are losing some of

253. Zoe Sherman, *Advertising and the Creation of Exchange Value* 32 (Sept. 2014) (Ph.D. dissertation, University of Massachusetts Amherst), <https://perma.cc/6NP9-5TSC>.

254. See Puri, *supra* note 195, at 208.

255. Michael J. Sandel, *What Isn’t for Sale?*, ATLANTIC (Apr. 2012), <https://perma.cc/VM5G-3Y54> (“We live in a time when almost everything can be bought and sold. Over the past three decades, markets—and market values—have come to govern our lives as never before.”).

256. Sherman, *supra* note 76, at 503.

257. See *id.* at 502 (“In the late nineteenth and early twentieth centuries, advertisers and the advertising professionals who served them successfully pushed the transformation of audience attention into a form of tradable property.” (footnote omitted)).

258. See, e.g., Communications Act of 1934, 47 U.S.C. § 227(a)(5) (defining unsolicited advertisements as having been transmitted without “prior express invitation or permission”).

259. See Dannielle Cisneros, *Do Not Advertise: The Current Fight Against Unsolicited Advertisements*, 2 DUKE L. & TECH. REV. 1, 5 (2003).

260. Gary S. Becker and Kevin M. Murphy appear to recognize this, though their choice of terminology is odd: “Ads may be given away . . . or they may be sold jointly with programs, newspaper articles, comics, sports pages, etc.” Gary S. Becker & Kevin M. Murphy, *A Simple Theory of Advertising as a Good or Bad*, 108 Q.J. ECON. 941, 942 (1993).

261. See, e.g., TERRY O’REILLY & MIKE TENNANT, *THE AGE OF PERSUASION: HOW MARKETING ATE OUR CULTURE* 29 (2009) (“[M]an is at his vilest when he erects a billboard. When I retire, I am going to start a secret society of masked vigilantes who will travel around the world . . . , chopping down posters at the dark of the moon.”).

their autonomy.²⁶² Attention exploitation imposes harms and costs on targets, but the costs are non-market-signaling as between human targets and the firms seeking to extract their attention.²⁶³ In other words, the bare fact that such a cost occurred does not indicate that a market-based exchange occurred.

On the other hand, some advertisements are what marketing literature calls “solicited”: delivered with the express or implied permission of their target audience.²⁶⁴ Note the normative import of terminology here—whether deliberate or not, the choice of “solicited” as a label suggests not just voluntariness but affirmative seeking out, which does not seem especially apt in many settings. Here, the process is one of attention *exchange*. Another note on terminology: The use of “exchange” should not be read to suggest “equally beneficial” or “purely voluntary.”

In an attention market setting, people produce something that firms want: attention. Corporate intermediaries have developed a variety of products and services—online search, social networks, video-hosting, and the like²⁶⁵—that they trade to people in exchange for attention. The archetypal attention exchange between a natural person and an intermediary, the firms that Tim Wu calls “attention merchants”²⁶⁶ or “attention brokers,”²⁶⁷ is a barter exchange.²⁶⁸ No money changes hands between the parties. But attention exchange is also central to “freemium” business models in which a supplier offers both zero-price and positive-price versions of the same basic product.²⁶⁹ This first step is attention extraction: acquiring control over the raw resource.²⁷⁰

Attention-extractive firms commodify attention for sale in part through technological means. A firm like Google or Meta controls access to its users via

262. Congress, perceiving this frustration on the part of email users, reacted by passing the CAN-SPAM Act in 2003. 15 U.S.C. §§ 7701-7713.

263. See Newman, *Foundations*, *supra* note 18, at 163.

264. See, e.g., Richard Wray & Katie Allen, ‘Money Follows Eyeballs’ and All Eyes Are Glued to the Web, *GUARDIAN* (Mar. 31, 2007, 6:58 EDT), <https://perma.cc/DCD6-FE8C>.

265. See, e.g., Newman, *Foundations*, *supra* note 18, at 176.

266. WU, ATTENTION MERCHANTS, *supra* note 18, at 5.

267. Wu, *Blind Spot*, *supra* note 18, at 772 (capitalization altered).

268. Brad J. Sagarin, M. Anne Britt, Jeremy D. Heider, Sarah E. Wood & Joel E. Lynch, *Bartering Our Attention: The Distraction and Persuasion Effects of On-Line Advertisements*, 8 *COGNITIVE TECH.* 4, 4 (2003); see WU, ATTENTION MERCHANTS, *supra* note 18, at 340.

269. This is true of both freemium strategies that involve an advertising-supported zero-price version of the product and strategies that do not involve third-party advertisements. As to the latter, the zero-price version of the relevant product is itself an advertisement for the premium, positive-price version offered by the supplier. Sagarin et al., *supra* note 268, at 4.

270. Cf. Julie E. Cohen, *Law for the Platform Economy*, 51 *U.C. DAVIS L. REV.* 133, 157 (2017) (describing the analogous collecting of personal information as a process of resource extraction).

its coding architecture.²⁷¹ This technological control is, as we have seen, entwined with legal controls and implemented primarily through contract. These firms also typically engage in what we can think of as “processing” the resource.²⁷² For example, an attention-extractive firm might segregate out a particular user’s attention based on (acquired) personal information about that user that makes them especially valuable to a certain type of advertiser, much the same as how an oil refinery will distill particular products like butane or naphtha at different boiling points for sale to different customers.²⁷³

Having acquired and (often) processed attention, these intermediaries usually sell it to advertisers, who consume it.²⁷⁴ This may be somewhat counterintuitive; humans are more often thought of as playing the role of “consumer.” But advertisers’ desire to consume human attention drives the attention-extraction business model, a dynamic implied by the oft-repeated adage that “if the product is free, you are the product.”²⁷⁵ In this way, attention markets are more like markets for labor than markets for widgets.

This conception of attention extraction departs from the economic model used by David S. Evans, Tim Wu, and others, who invoke the economic concept of two-sided platform markets.²⁷⁶ In that model, the intermediaries are (merely) “merchants” or “brokers” who bring together two groups of counterparties: advertisers and users. Note here again the suggestive terminology: A “platform” is (also) something people stand on, relatively powerless, passive, and helpful. A “broker” is a matchmaker of sorts, bringing together a buyer and a seller who want to do business together. “Resource extraction” instead carries connotations

271. See, e.g., Nick Statt, *Facebook Shuts Off Access to User Data for Hundreds of Thousands of Apps*, VERGE (July 31, 2018, 3:35 PM PDT), <https://perma.cc/HWQ6-6UY8> (describing how Facebook’s decision to terminate access to application programming interfaces effectively terminated third-party access to user data).

272. See Cohen, *supra* note 270, at 157-58.

273. *Crude Oil Distillation and the Definition of Refinery Capacity*, U.S. ENERGY INFO. ADMIN. (July 5, 2012), <https://perma.cc/V9FE-L7TH>.

274. Will Oremus, *Are You Really the Product?*, SLATE (Apr. 27, 2018, 5:55 AM), <https://perma.cc/G8W6-MD58> (“[B]oth [broadcast TV and Facebook] aggregate attention for the benefit of advertisers . . .”).

275. John Lanchester, *You Are the Product*, LOND. REV. BOOKS (Aug. 17, 2017), <https://perma.cc/3ZUP-N2DM> (“Facebook’s customers aren’t the people who are on the site: its customers are the advertisers who use its network and who relish its ability to direct ads to receptive audiences.”); see also Thales S. Teixeira, *When People Pay Attention to Video Ads and Why*, HARV. BUS. REV. (Oct. 14, 2015), <https://perma.cc/G47M-UXJ5> (“Marketers’ demand for consumers’ attention has grown dramatically in recent years . . .”).

276. See David S. Evans, *The Economics of Attention Markets 4* (Apr. 15, 2020) (unpublished manuscript), <https://perma.cc/DGT9-BRGV> (“This paper treats [attention] platforms as two-sided”); Wu, *Blind Spot*, *supra* note 18, at 787-88 (“In economic terms, the Attention Broker can be described as a specialized version of a platform intermediary in a two-sided market.”).

of power, risk of abuse, and harmful spillover effects.²⁷⁷ It is, as we will see, the more accurate construct for describing and analyzing attention capitalism.

C. Interfirm Competition for Attention

Institutional actors compete to attract attention. According to neoclassical microeconomic theory, as the degree of competition increases, competitors will offer increasingly favorable terms of dealing to their counterparties.²⁷⁸ The inverse is also true: A decrease in competitive pressure is generally associated with less favorable terms being offered—higher prices to customers, lower prices to suppliers, etc.²⁷⁹

How well does this theory hold as to attention markets? Some evidence does indicate that competition works: It can help to lower attention costs, albeit in the context of relatively homogeneous products like broadcast radio.²⁸⁰ In that setting, attention costs are one of the most salient aspects of competition for attention, making it more likely that competitive pressure will improve outcomes for human counterparties. But even under neoclassical economics, the more differentiated the product(s), the less the competitive pressure created by other suppliers.²⁸¹

Moreover, attention markets, and especially digital attention markets, are different from the homogeneous-goods markets that are the subject of basic neoclassical economic theory. For one thing, they comprise more—and more complex—interactions. By its very nature, attention-market activity generates spillover effects.²⁸² Why do advertisers consume attention? Because they seek to engage in a second, subsequent interaction with the natural persons whose attention they have consumed.²⁸³ Suppose the relevant advertiser is a manufacturer of goods for human consumption. In the hoped-for second interaction, the advertiser (formerly a consumer of attention) assumes the role of producer. The natural person (formerly a producer of attention) assumes the

277. See *Thompson v. Hebdon*, 7 F.4th 811, 834 (9th Cir. 2021) (Thomas, C.J., concurring in part and dissenting in part).

278. See DENNIS W. CARLTON & JEFFREY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 67, 79-83 (1990).

279. See *id.*

280. Newman, *Foundations*, *supra* note 18, at 175.

281. See CARLTON & PERLOFF, *supra* note 278, at 311 (“[P]roduct differentiation can lead to market power. When consumers view brands in an industry as imperfect substitutes, a firm may raise its price above that of its rivals without losing all its customers.”).

282. See generally AM. PSYCH. ASS’N, *HEALTH ADVISORY ON SOCIAL MEDIA USE IN ADOLESCENCE* (2023) (describing psychological research findings on mental-health effects of attention-extractive social-media usage among youth).

283. The desired interaction will, of course, vary depending on the advertiser’s interests. A politician seeks a vote, a government seeks to promote prosocial (or discourage antisocial) behavior, a retailer seeks a purchase, and so on.

role of consumer.²⁸⁴ Thus, for example, the maker of a sports-betting app may consume a natural person's attention in an attention market, with an eye toward encouraging that person to start using the betting app in a second or subsequent interaction.²⁸⁵ For policy purposes, understanding the full effects of attention markets at a macro level requires adding these knock-on interactions into the mix.²⁸⁶

Another critical difference between attention markets and markets for widgets: Attention extraction can exhaust and degrade the stock of attention among its producers—natural persons²⁸⁷—which, in turn, broadly affects those people's cognition and behavior in other spheres of activity.

As we have seen, cognitive processes can be overloaded or exhausted by attention extraction activity.²⁸⁸ The extraction stage of an attention market—wherein a natural person produces attention that is eventually consumed by a downstream entity—leaves the person-producer with marginally less cognitive capacity to exert on decisions going forward.²⁸⁹ This depletion effect can change decisionmaking in a variety of scenarios. Most directly, it may cause the person to take an action vis-à-vis the hoped-for second interaction that the person would not have taken under nonoverload or nonexhaustion conditions. Continuing the above example, a person who has been scrolling through a social-media feed long enough to experience ego depletion may be more likely to click through the ad for the online sports-betting app.²⁹⁰

284. See Barak Y. Orbach, *The Antitrust Consumer Welfare Paradox*, 7 J. COMPETITION L. & ECON. 133, 163 (2011).

285. Cf. Deven R. Desai & Spencer Waller, *Brands, Competition, and the Law*, 2010 BYU L. REV. 1425, 1436 (2010) (“From the birth of modern branding to today, businesses have used brands as a way to create demand . . .”).

286. See Josef Falkinger, *Limited Attention as a Scarce Resource in Information-Rich Economies*, 118 ECON. J. 1596, 1597 (2008) (“[T]he article proposes a two-stage competitive equilibrium model . . . In the first stage, firms compete for the attention of consumers by sending signals. In the second stage, those firms that succeed in attracting attention compete for the budget of consumers . . .”).

287. See *supra* Part III.A.

288. See *supra* Part III.A.

289. At least until that person is able to recharge or regenerate via sleep, exercise, meditation, or consuming glucose. See Randall J. Kaplan, Carol E. Greenwood, Gordon Winocur & Thomas M.S. Wolever, *Cognitive Performance Is Associated with Glucose Regulation in Healthy Elderly Persons and Can Be Enhanced with Glucose and Dietary Carbohydrates*, 72 AM. J. CLIN. NUTR. 825, 830, 834 (2000).

290. Under the persuasive view of advertising, inducing such behavior is the primary function of advertising. See Woodcock, *supra* note 9, at 2283. Of course, some might object that a beverage can never be “over-sized”; if a consumer purchased it, she must have decided it was optimally sized. Luke Herrine labels this the “consumer sovereignty” position and persuasively suggests that it reflects a failure to understand that the backdrop against which purchases are made is sociolegally constructed and therefore contingent. See Luke Herrine, *Consumer Protection After Consumer Sovereignty*, LAW & POL. ECON. PROJECT (Apr. 17, 2020), <https://perma.cc/835M-D6ZX>.

The attention-depletion effect may also cause ripple or spillover effects in other interactions and settings. Cognitive overload and depletion can increase racial and gender bias,²⁹¹ reduce information-gathering efforts,²⁹² and weaken self-control.²⁹³ Thus, attention extraction can leave attention producers (natural persons) more likely to engage in negative subsequent societal interactions.²⁹⁴ These spillover and ripple effects occur outside the artificially demarcated boundaries of a “market,” in the realm of society, and therefore are largely ignored by orthodox economics.²⁹⁵

Yet another way that attention markets differ from markets for widgets is that attention-extraction activity can change the producer of the asset. Acquiring a widget from a manufacturer does not change the manufacturer itself. But attention extraction, and especially particular techniques deployed to increase the amount of attention that can be extracted, may cause addiction—and may change the nature of the person-producer. And addiction may multiply the number and magnitude of negative effects. Some debate persists over the existence and prevalence of addiction to attention-market products.²⁹⁶ But a substantial body of empirical literature suggests that addiction—particularly social-networking addiction—is a real and substantial phenomenon.²⁹⁷ Clinical studies report that social-media overuse manifests via classic addictive symptoms, including withdrawal and increased interpersonal conflicts.²⁹⁸ Even self-reported statements suggest room for concern: In one survey, a majority of

291. As to racial bias, see Bertrand et al., note 237, at 95 above. On gender bias, see Bettina Nyeste, *Influence of Cognitive Capacity on Stereotyping and Discrimination* 3 (June 24, 2016) (master thesis, Radboud Universiteit Nijmegen), <https://perma.cc/LYH2-L9FS>.

292. Merlo et al., *supra* note 238, at 192.

293. Jae, *supra* note 239; Baumeister et al., *supra* note 232, at 154.

294. A somewhat related phenomena is the accelerating turnover rate of individual topics in popular media—the “news cycle” is speeding up. See Philipp Lorenz-Spreen, Bjarke Mørch Mønsted, Philipp Hövel & Sune Lehmann, *Accelerating Dynamics of Collective Attention*, NATURE COMMUN., 2019, at 1, 1-2 (finding that increasing rates of content production and consumption are accelerating the rate of change of collective attention).

295. Cf. KATE RAWORTH, DOUGHNUT ECONOMICS: SEVEN WAYS TO THINK LIKE A 21ST CENTURY ECONOMIST 69-70 (2017) (explaining that neoliberal economic theory generally ignores society).

296. Thus, for example, the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*, published in 2013 by the American Psychiatric Association, for the first time included “internet gaming disorder,” but only as a “condition[] for further study.” AM. PSYCH. ASS’N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 795-96 (5th ed. 2013) (capitalization altered).

297. See, e.g., Mark D. Griffiths, Daria J. Kuss & Zsolt Demetrovics, *Social Networking Addiction: An Overview of Preliminary Findings*, in BEHAVIORAL ADDICTIONS: CRITERIA, EVIDENCE, AND TREATMENT 119, 124-34 (Kenneth Paul Rosenberg & Laura Curtiss Feder eds., 2014).

298. See Julia Brailovskaia, Jürgen Margraf & Volker Köllner, *Addicted to Facebook? Relationship Between Facebook Addiction Disorder, Duration of Facebook Use and Narcissism in an Inpatient Sample*, 273 PSYCHIATRY RSCH. 52, 52-53 (2019).

U.S.-teenaged persons stated that they spend too much time on their phones and have tried to limit their use of social media.²⁹⁹ Moreover, the behavior of for-profit attention intermediaries offers further evidence that user addiction is a real phenomenon. Firms like Meta, X Corp., TikTok, and the like employ an ever-evolving suite of features designed to shape user behavior via Skinneresque operant conditioning.³⁰⁰ A cottage industry of startups employs highly educated neuroscientists to advise on digital-app design.³⁰¹ The goal is explicit and straightforward: to design “tool[s] that allow[] any app to become addictive.”³⁰² As one tech founder, a doctor of neuroinformatics, put it, “people don’t just love that burst of dopamine they get from a notification; it changes the wiring of the brain.”³⁰³ To the extent such efforts succeed, they amplify the negative effects of attention-extraction activity described above. For-profit firms have an incentive to deploy increasingly addictive user environments: More user attention can translate into more revenues.³⁰⁴

IV. (Re)structuring Attention Markets

Recognizing that attention markets are already broadly and deeply structured by law and legal institutions³⁰⁵ reveals the encouraging truth that different pathways are possible. General trade-regulating laws have both channeled activity into attention extraction and consolidated power within

299. Jingjing Jiang, *How Teens and Parents Navigate Screen Time and Device Distractions*, PEW RSCH. CTR. 2 (2018), <https://perma.cc/3RBF-VBRV>.

300. Psychologist B.F. Skinner trained pigeons and rats to engage in conduct that triggered a reward mechanism, thereby causing them to “learn[] to associate voluntary action with a consequence, a process known as operant conditioning.” Allison Caffarone, *Virtual Gaming, Actual Damage: Video Game Design That Intentionally and Successfully Addicts Users Constitutes Civil Battery*, 23 DUKE L. & TECH. REV. 55, 66 (2023). For examples of such features, see Gregory Day & Abbey Stemler, *Are Dark Patterns Anticompetitive?*, 72 ALA. L. REV. 1, 15-16 (2020) (cataloguing various conditioning tactics); and Puri, *supra* note 195, at 215-18.

301. See Jonathan Shieber, *Dopamine Labs Slings Tools to Boost and Reduce App Addiction*, TECHCRUNCH (Feb. 13, 2017, 7:30 AM PST), <https://perma.cc/Q7UR-XXZM>.

302. *Id.* (internal quotation marks omitted).

303. *Id.*

304. Rosenquist et al., *supra* note 251, at 445 (“User environments that are addictive are profitable because more time spent on the platform allows the platform to display additional ads to the user, which increases revenues.”).

305. Whether law’s role is truly “constitutive” is arguable, but beside the point. The law has certainly *shaped* attention markets in particular ways. This finding aligns with one of the fundamental tenets of the law-and-political-economy movement. See, e.g., Jedediah Britton-Purdy & David Singh Grewal, *Law & Neoliberalism*, LAW & POL. ECON. PROJECT (Nov. 6, 2017), <https://perma.cc/W7CE-MR3L> (“[M]arkets follow and take their shape from political and legal decisions defining and assigning rights of property, contract, incorporation, investment, etc.”).

attention-extraction firms.³⁰⁶ But a multidisciplinary approach to understanding attention capitalism indicates that attention markets are prone to exploitation, excessive extractive activity, and harmful spillover effects.³⁰⁷ The current legal channeling is thus “hard to square with any obvious intuitions of justice.”³⁰⁸ And excavating the role of law belies the idea that we can just leave “the market” to work things out on its own.

Broadly speaking, reforms attuned to the realities of attention markets can be grouped into two categories. The first is reforms to redirect current activity-channeling laws and rules. The second is additions to the current toolkit: imposing hard limits on attention acquisition, indirectly limiting overextraction by taxing corporate attention sales or consumption, and limiting general abuse of contract by attention-extraction firms.

A. Redirecting Existing Laws and Rules

Antitrust, privacy, and contract law have granted immunities and special dispensations for particular attention-extraction business models and particular types of harmful conduct. These are low-hanging fruit for any antidomination reform project.

1. Increasing and improving antitrust enforcement

Like other antimonopoly laws, antitrust laws are supposed to disperse economic power, limit domination both proactively and by accommodating democratizing coordination activity, and set rules of the road for fair competition.³⁰⁹ And they are supposed to do so with “democratic values.”³¹⁰ But for decades, antitrust institutions gave a special immunity to attention-extraction firms that opted to use zero-price business models.³¹¹ That choice yielded outcomes antithetical to antitrust’s core purposes: It consolidated power and facilitated domination.³¹²

Increasing enforcement against dominant attention-extraction firms is the first, much-needed step. Some promising indications have emerged in recent

306. *See supra* Part I.

307. *See supra* Part III.

308. FRIED, *supra* note 50, at 3.

309. *See* Sanjukta Paul, *Recovering the Moral Economy Foundations of the Sherman Act*, 131 YALE L.J. 175, 179 (2021).

310. *See* Harry First & Spencer Weber Waller, *Antitrust’s Democracy Deficit*, 81 FORDHAM L. REV. 2543, 2544-45 (2013).

311. *See supra* Part I.A.5; *see also* Gregory Day, *Monopolizing Free Speech*, 88 FORDHAM L. REV. 1315, 1333 (2020) (“A market may thus lie beyond antitrust’s reach if the relevant goods lack prices.”).

312. Day, *supra* note 311, at 1337-38.

years. In 2020, the FTC filed a monopolization case against Facebook (now Meta) focused squarely on attention and information extraction.³¹³ And although that complaint was dismissed, the agency, under new leadership, filed an amended complaint that survived early motions practice.³¹⁴ The DOJ, also in 2020, filed a monopolization case against Google that focused in part on the “general search services” market.³¹⁵

But reason for concern and room for improvement remain. For example, in 2020, enforcers let Apple unconditionally acquire Dark Sky, a direct competitor in providing smartphone weather apps.³¹⁶ Dark Sky’s business model was not attention-extractive; instead, it charged positive-price fees.³¹⁷ After acquiring control of Dark Sky, Apple promptly terminated access for Android users.³¹⁸ And a few years later, Apple withdrew Dark Sky from iOS users as well.³¹⁹ Users likely switched to alternatives like The Weather Channel’s app, which extracts attention by displaying third-party advertisements,³²⁰ or Apple’s own Weather app, which similarly extracts attention by displaying widgets that link to Apple’s “News” app,³²¹ which in turn extracts attention by displaying third-party advertisements.³²²

Robust antitrust enforcement in attention markets will require more than one or two cases, significant though those cases are. It will require deploying the full antitrust toolkit. Long forgotten statutory tools like the second prong of Clayton Act Section 7, which prohibits all mergers or acquisitions that “may . . . tend to create a monopoly,” should play a role.³²³ That bar would be an especially

313. Complaint, *supra* note 134, at 2.

314. *FTC v. Facebook, Inc.*, 581 F. Supp. 3d 34, 40 (D.D.C. 2022).

315. Complaint at 2, *United States v. Google LLC*, 2025 WL 2523010 (D.D.C. Sept. 2, 2025) (No. 20-cv-03010), 2020 WL 6152114.

316. Jay Peters, *Apple Acquires Popular Weather App Dark Sky and Will Shut Down the Android Version*, VERGE (Mar. 31, 2020, 10:49 AM PDT), <https://perma.cc/CZ73-DH54>.

317. *Id.*

318. *Id.*

319. Srini Kadamati, *A Eulogy for Dark Sky, a Data Visualization Masterpiece*, NIGHTINGALE: J. DATA VISUALIZATION SOC’Y (Mar. 22, 2023), <https://perma.cc/XW4U-SPQ9>.

320. *See Upgrade for Premium Forecasts, Ad-Free*, WEATHER CHANNEL, <https://perma.cc/2XMA-GTQA> (archived Jan. 11, 2026). The Weather Channel also offers a paid subscription that eliminates advertisements. *Id.*

321. *Weather App “Ads” Now?*, MACRUMORS (May 16, 2023), <https://perma.cc/2CXZ-RAG7> (displaying user-posted screenshots).

322. *Advertising on Apple News and Stocks*, APPLE SUPPORT, <https://perma.cc/XLQ2-LVHA> (archived Nov. 28, 2025) (“Advertising on Apple News . . . offers the powerful ability to reach over 60 million active monthly users with impactful display, video, and native ads.”).

323. Robert H. Lande, John M. Newman & Rebecca Kelly Slaughter, *The Forgotten Anti-Monopoly Law: The Second Half of Clayton Act Section 7*, 103 TEX. L. REV. 785, 787 (2025) (internal quotation marks omitted) (quoting 15 U.S.C. § 18).

apt fit for assessing an acquisition like Apple-Dark Sky, a tie-up that further tilted the playing field in favor of Apple, an incumbent that already wielded considerable power in the smartphone market.³²⁴

And effective antitrust enforcement will require enforcers to draw from and deploy a sophisticated understanding of attention. Here again, we have seen some promising signs. In 2024, in *United States v. Google LLC*, the trial court found that Google had engaged in illegal monopolization in an opinion that was, if not especially focused on the extraction of attention costs, highly attuned to the importance of defaults, user habits, and choice frictions.³²⁵ The DOJ had, at trial, very effectively used a behavioral economist drawing on psychology research, a departure from the standard reliance on industrial-organization economists.³²⁶ Creating a multidisciplinary bench of expertise was one of the underappreciated efforts undertaken by the new wave of antimonopoly leaders who oversaw federal antitrust enforcement agencies from 2021 to 2024.³²⁷ Civil-society organizations also have an important role to play here via, for example, amicus brief programs to help educate receptive judges on the value that heterodox experts can offer.

Finally, effective antitrust enforcement may require doctrinal innovations. Some of the analytical tools that enforcers and judges have created and invoked to justify their decisions are facially unworkable in attention markets. Take, for example, the SSNIP (Small but Significant Non-transitory Increase in Price) method of defining relevant markets to aid antitrust analyses.³²⁸ The test requires positive prices to function,³²⁹ but scholars have proposed alternatives for use in zero-price attention markets,³³⁰ as identified in the latest agency merger enforcement guidelines.³³¹ Other tools, like the “ability-incentive” liability test for vertical mergers (which asks whether a merger would increase

324. See Complaint at 4, 8, *United States v. Apple Inc.*, 2025 WL 1829127 (D.N.J. June 30, 2025) (No. 24-cv-04055), 2024 WL 1219405 (alleging credibly that Apple has durable monopoly power in the performance smartphone and broader smartphone markets).

325. 747 F. Supp. 3d 1, 160, 187 (D.D.C. 2024).

326. *Id.* at 45, 121.

327. See Press Release, FTC, FTC Launches New Office of Technology to Bolster Agency’s Work: Chief Technologist Stephanie T. Nguyen Will Head the New Office (Feb. 17, 2023), <https://perma.cc/7HGC-3H6A>; Jonathan Kanter, Assistant Att’y Gen., Antitrust Division, U.S. Dep’t of Just., Remarks at the Keystone Conference on Antitrust, Regulation & the Political Economy (Mar. 2, 2023), <https://perma.cc/UL5V-DED8>.

328. For a defense of market definition, see Gregory J. Werden, *The Relevant Market: Possible and Productive*, ANTITRUST L.J. ONLINE, Apr. 2014, at 1, 2. For a critique, see Louis Kaplow, *Why (Ever) Define Markets?*, 124 HARV. L. REV. 437, 440 (2010).

329. Newman, *Applications*, *supra* note 18, at 65.

330. Wu, *Blind Spot*, *supra* note 18, at 797; Newman, *Applications*, *supra* note 18, at 66; Michal S. Gal & Daniel L. Rubinfeld, *The Hidden Costs of Free Goods: Implications for Antitrust Enforcement*, 80 ANTITRUST L.J. 521, 551-52 (2016).

331. U.S. DEP’T OF JUST. & FTC, MERGER GUIDELINES § 4.4.B (2023).

the merged firm's ability or incentive to lessen competition),³³² may offer value in some contexts but are entwined with mathematical models that are quite brittle and vulnerable to attack by highly paid defense-side experts.³³³ As to both market definition and this liability question, Supreme Court opinions of a bygone era suggest an alternative: multi-factor tests that incorporate practical, workable indicia.³³⁴ One of the rare recent Supreme Court opinions to have paved the way for plaintiff victories similarly laid out a multi-factor test for analyzing the legality of "pay-for-delay" (also called "reverse payment") agreements between pharmaceutical companies.³³⁵ These approaches tend to lessen the need for costly and often misleading economic expert testimony.³³⁶ Developing similar frameworks for other legal issues and liability tests could be fruitful, and an area where legal scholars may have value to add.³³⁷

332. *FTC v. Tempur Sealy Int'l, Inc.*, 768 F. Supp. 3d 787, 831 (S.D. Tex. 2025).

333. *See United States v. AT&T, Inc.*, 916 F.3d 1029, 1031-32 (D.C. Cir. 2019) (finding for defendant in part because defendant's expert witness was able to offer a better analysis of "real-world data" vertical mergers' economic effects than the government); *Tempur Sealy Int'l, Inc.*, 768 F. Supp. 3d at 805.

334. On market definition, see, for example, *United States v. Grinnell Corp.*, 384 U.S. 563, 571-74 (1966) (considering the degree of functional interchangeability between products); and *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962) (identifying several practical indicia). *Cf.* *United States v. Microsoft Corp.*, 253 F.3d 34, 53-54 (D.C. Cir. 2001) (considering whether actual industry participants treated the candidate market as an identifiably discrete locus of activity). On vertical-merger liability, see *Brown Shoe Co.*, 370 U.S. at 344-46. *Cf.* *Fruehauf Corp. v. FTC*, 603 F.2d 345, 351-54 (2d Cir. 1979) (applying principles from *Brown Shoe Co.*).

335. *FTC v. Actavis, Inc.*, 570 U.S. 136, 153-58 (2013).

336. *See, e.g.*, Spencer Weber Waller, *Institutions and Incentives in Antitrust Enforcement*, MKT & COMPETITION L. REV., Apr. 2020, at 15, 34 ("Private antitrust counsel find *Actavis* type class actions a potentially profitable positive expected value type of class, on a par with straight ahead *per se* horizontal price fixing cases, [in part] because of the ability of specialised lawyers, law firms, and expert witnesses to rely on the *Actavis* presumptions . . ."). On expert testimony's cost and potential to mislead, see, for example, Rebecca Haw, *Adversarial Economics in Antitrust Litigation: Losing Academic Consensus in the Battle of the Experts*, 106 NW. U. L. REV. 1261, 1263 (2012) (arguing that adversarial expert economic testimony tends to obscure areas of academic consensus); Jesse Eisinger & Justin Elliott, *These Professors Make More than a Thousand Bucks an Hour Peddling Mega-Mergers*, PROPUBLICA, (Nov. 16, 2016), <https://perma.cc/P949-U337> ("[A] ProPublica examination of several marquee deals found that economists sometimes salt away inconvenient data in footnotes and suppress negative findings, stretching the standards of intellectual honesty to promote their clients' interests."); and *id.* ("This is not the scientific method," said Orley Ashenfelter, a Princeton economist known for analyzing the effects of mergers . . . "The answer is known in advance, either because you created what the client wanted or the client selected you as the most favorable from whatever group was considered.").

337. Courts have asserted that where an extralegal economic tool hinders the fulfillment of a democratically enacted statutory mandate, it is the tool that must yield to the law, not the other way around. *Cf., e.g.*, *Morgan v. United States*, 304 U.S. 1, 14 (1938) ("The vast expansion of . . . administrative regulation in response to the pressure of social needs is
footnote continued on next page

All that being said, antitrust is a powerful part of the antimonopoly toolkit—open competition can yield some good for society—but it is just a part. And “competition,” defined as “interfirm rivalry,” is unlikely to be a panacea.³³⁸ The complexity and interconnectedness of attention markets are such that leveling the competitive playing fields will be an incomplete solution.³³⁹

One final word of caution: A reform project serious about antidomination and democratic goals should resist the calls from various quarters to rely on “consumer choice” as a lodestar for enforcement and analysis. According to the orthodox account, antitrust law is solely concerned with the neoclassical economic concept of “consumer welfare.”³⁴⁰ Though proponents often wrap their arguments in the mantle of “uniformity” and “clarity,” the meaning of “consumer welfare” has always been highly contestable—a shapeshifter. One prominent vein suggests it is interchangeable with “consumer choice.” Judicial opinions have suggested that consumer choice is “the crux of the antitrust laws,”³⁴¹ a “traditional objective of the antitrust laws,”³⁴² and one of the “purposes of antitrust law.”³⁴³ An assistant attorney general overseeing the Department of Justice Antitrust Division in 2018 has posited that “consumer choice can be an important metric for consumer welfare effects.”³⁴⁴ FTC

made possible under our system by adherence to the basic principle[] that the Legislature shall appropriately determine the standards of administrative action . . .”). This Author thanks David S. Romantz for direction to this line of authority.

338. Cf. Tristan Bove, *Review—‘Competition Is Killing Us’ by Michelle Meagher*, EARTH.ORG (May 3, 2021), <https://perma.cc/U68Z-2JL5> (“The problem, Meagher argues, is that free markets focus on maximising shareholder value while failing to keep the public interest in mind.”).

339. See *supra* Part III.C.

340. See, e.g., *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (“Congress designed the Sherman Act as a ‘consumer welfare prescription.’” (quoting ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* 66 (1978))); Herbert Hovenkamp, *The Rule of Reason*, 70 FLA. L. REV. 81, 107 (2018) (arguing that consumer, rather than total, welfare should continue to serve as antitrust’s lodestar). But see C. Scott Hemphill & Nancy L. Rose, *Mergers that Harm Sellers*, 127 YALE L.J. 2078, 2080 (2018) (contending that although “courts and commentators often refer to the protection of ‘consumer welfare,’” actual decisionmaking is better explained by concern for “trading partner welfare”); Barak Orbach, *How Antitrust Lost Its Goal*, 81 FORDHAM L. REV. 2253, 2277 (2013) (asserting that while “the consumer welfare standard may continue serving as the stated goal of U.S. competition laws . . . practically, antitrust has always been and will always be about the preservation of competition”).

341. *Doron Precision Sys., Inc. v. FAAC, Inc.*, 423 F. Supp. 2d 173, 183 n.11 (S.D.N.Y. 2006).

342. *United States v. Brown Univ.*, 5 F.3d 658, 675 (3d Cir. 1993).

343. *Dr.’s Hosp. of Jefferson, Inc. v. Se. Med. All., Inc.*, 123 F.3d 301, 306 (5th Cir. 1997); see also *Glendora v. Gannett Co.*, 858 F. Supp. 369, 371 (S.D.N.Y. 1994) (“The federal antitrust laws seek to maximize consumer choice in the marketplace.”).

344. Makan Delrahim, Assistant Att’y Gen., Dep’t of Just., Remarks at the Jevons Colloquium in Rome (May 22, 2018), <https://perma.cc/64ZJ-7YYH>.

commissioners have made similar statements.³⁴⁵ And scholars, most notably Robert H. Lande and Neil W. Averitt, have proposed using “consumer choice” as the best way for antitrust to promote “consumer welfare.”³⁴⁶

But, as we have seen, “choices” are not always positively correlated with benefits to the people who face them.³⁴⁷ This may occur because a low level of interfirm market competition has allowed firms to create a choice environment favoring themselves over their human trading partners.³⁴⁸ This can also occur because of competition—the drive to squeeze out more profits than peer firms can incentivize extractive conduct.³⁴⁹ Again, increasing the number of choices available generally requires those who must make the choice to incur greater attention costs.³⁵⁰ Excessive choice availability can produce “choice paralysis”: Faced with a decision among too many competing options, some will simply walk away.³⁵¹ Studies show that those who do press forward with a transaction

345. E.g., Thomas B. Leary, Former Comm’r, FTC, *Freedom as the Core Value of Antitrust in the New Millennium* (Apr. 6, 2000), <https://perma.cc/4KFL-8XZT> (“I would like to advance the view that these two ‘freedoms’—the freedom of producers to sell and the freedom of consumers to buy—are today fundamental core values that inform antitrust law . . .”).

346. See Averitt & Lande, *supra* note 219, at 262; Robert H. Lande, *Consumer Choice as the Ultimate Goal of Antitrust*, 62 U. PITT. L. REV. 503, 525 (2001). Though Robert H. Lande and Neil W. Averitt prefer this path for several reasons, including increased transparency, predictability, and administrability, see Averitt & Lande, *supra* note 219, at 175-76, it appears to be the predicted benefits to consumer welfare that largely motivate their arguments. Thus, for example, building from the observation that “simple price analysis” will be useless in markets that exhibit “little or no price competition,” they argue for a consumer-choice standard because “[t]here is no good way to assess consumer welfare in those markets without considering the nonprice choice issues.” Averitt & Lande, *supra* note 219, at 176. Averitt and Lande do note the potential problems of choice overload but suggest that a “free market” will make the “calculations” necessary to provide consumers with an optimal number of choices. *Id.* at 192-93.

347. For an early argument against relying too heavily on “choices” as a goal, see Maurice E. Stucke, *Reconsidering Antitrust’s Goals*, 53 B.C. L. REV. 551, 574-75 (2012) (“One cannot rely entirely on consumers’ choices, as consumers at times choose poorly and contrarily to their long-term interests.”).

348. See J. Thomas Rosch, Comm’r, FTC, *Can Consumer Choice Promote Trans-Atlantic Convergence of Competition Law and Policy?* 25 (June 8, 2012), <https://perma.cc/23HJ-PNFA> (“If consumers become overwhelmed by the choices they have and encounter difficulties in making a decision, then we have to wonder whether competition on the merits is really all that robust.”).

349. Cf. Andrei Shleifer, *Does Competition Destroy Ethical Behavior?*, 94 AEA PAPERS & PROCS. 414, 418 (2004) (explaining that “competition” as a market force can spur both unethical conduct and also beneficial innovation by firms).

350. Botti & Iyengar, *supra* note 243, at 27 (“An increase in the number of choices may raise the cognitive costs involved in evaluating the relative attractiveness of each option . . .”).

351. Barry Schwartz, *More Isn’t Always Better*, HARV. BUS. REV. (June 2006), <https://perma.cc/PL4L-YPXR>.

can be less satisfied with choices made.³⁵² In short, whether “more consumer choice” is a typical result of enhanced competition—or, indeed, a desirable end at all—is messy, complex, and often difficult to predict. And stepping back, the entire notion of labeling actions as “choices” in the highly manipulable environment of digital attention markets is dubious. Perhaps “responses” would be a better label.³⁵³ In any event, “consumer choice” would be far too thin a concept to serve as the backbone of a reformed antitrust enterprise.

2. Privacy protection

Judicial opinions like *In re DoubleClick Inc. Privacy Litigation*³⁵⁴ decline to recognize attention costs from targeted advertisements as a type of legally cognizable damage or loss for purposes of applying privacy and data-protection laws.³⁵⁵ But the framework laid out above would correctly recognize that highly targeted advertisements can extract more attention than less-targeted ones. As Anuj Puri explains, these advertisements are a form of “supernormal stimulus.”³⁵⁶

These judicial opinions themselves leave some room for a course reversal: They typically frame their analysis not in terms of attentional harms, but as an information issue.³⁵⁷ Advocates may thus find more success by reframing their claims as attentional in nature, instead of information-centric. Loss of data privacy can be counterintuitive when depicted as a “harm” for some, in part because information is generally nonrivalrous in nature, making the idea of “loss” or “deprivation” facially an awkward fit. Attention, however, is by its very nature rivalrous; attention paid to something is necessarily attention not paid somewhere else. And to the extent that each instance of harm may be fairly small when viewed in isolation, class actions can seek to stop, or at least secure compensation for large, aggregated harms. Establishing this type of harm as legally cognizable for privacy-law purposes could go some distance toward limiting surveillance-based attention extraction as a business model.

352. Botti & Iyengar, *supra* note 243, at 24, 26.

353. See TOM SLEE, NO ONE MAKES YOU SHOP AT WAL-MART: THE SURPRISING DECEPTIONS OF INDIVIDUAL CHOICE 204 (2006) (observing that “responses” may be a better way to characterize “choices” that ultimately reduce decisionmakers’ welfare).

354. 154 F. Supp. 2d 497 (S.D.N.Y. 2001).

355. *Id.* at 525; T.D. v. Piedmont Healthcare, Inc., No. 23-CV-5416, 2024 WL 3972984, at *3-7 (N.D. Ga. Aug. 28, 2024).

356. Puri, *supra* note 195, at 210-11.

357. *Piedmont Healthcare, Inc.*, 2024 WL 3972984, at *3 (“Other district courts examining the issue have found that the collection and sale of this kind of information does not carry a compensable value to consumers . . .” (quoting *Steinberg v. CVS Caremark Corp.*, 899 F. Supp. 2d 331, 339 (E.D. Pa. 2012))).

3. Ending the contract special dispensation

The common law of contracts nominally aspires to universality and generally applicable rules and standards.³⁵⁸ Blanket exculpatory clauses and similarly one-sided contract terms may be positively justified for charitable organizations that actually offer services and products “free to the public.”³⁵⁹ In at least some cases, such organizations do not receive direct compensation that could offset potential liability stemming from their activities.³⁶⁰ Those activities can be prosocial yet create liability exposure.³⁶¹ Affording such organizations some leeway to impose one-sided contractual terms may be a necessary evil, justified by the greater good that such organizations produce.³⁶²

But this logic cannot justify the favored status for attention-extraction intermediaries like Alphabet or Meta. Products like YouTube are not “free to the public.”³⁶³ Google, which is owned by Alphabet, supplies YouTube in exchange for licenses to user-generated content³⁶⁴ and for users’ attention to advertisements.³⁶⁵ For-profit firms do not face the resource constraints that may justify favorable treatment for actual charitable organizations.³⁶⁶

358. See Donal Nolan, *The Classical Legacy and Modern English Contract Law*, 59 MOD. L. REV. 603, 614-15 (1996).

359. Cf., e.g., Andrew Jay McClurg, *Your Money or Your Life: Interpreting the Federal Act Against Patient Dumping*, 24 WAKE FOREST L. REV. 173, 179-80 (1989) (arguing that U.S. hospitals should no longer be viewed as charitable social-good providers, but instead as “business[es], as competitive as any other”).

360. See Nina J. Crimm, *An Explanation of the Federal Income Tax Exemption for Charitable Organizations: A Theory of Risk Compensation*, 50 FLA. L. REV. 419, 452-53 (1998).

361. For example, methadone clinics that provide daily supervised methadone doses to help treat opioid dependence sometimes offer their service for free at the point of dispensation. *Are There Free Methadone Clinics Near Me?*, METHADONE CLINICS, <https://perma.cc/YP3N-4H5C> (archived Dec. 1, 2025).

362. Even conservative legal scholarship, which often treats egalitarianism as anathema, considers the principle of “treating like things alike” one “of great resonance for law.” RICHARD A. POSNER, *THE PROBLEMS OF JURISPRUDENCE* 42 (1990); James Boyle, *A Process of Denial: Bork and Post-Modern Conservativism*, 3 YALE J.L. & HUMANS. 263, 303 (1991) (“Both [Edmund] Burke and [Robert] Bork think that egalitarianism is a corrosive doctrine, weakening the social distinctions and mental habits on which social stability is founded.”).

363. *But see* Lewis v. YouTube, LLC, 197 Cal. Rptr. 3d 219, 224 (Ct. App. 2015).

364. See *Terms of Service*, YOUTUBE, <https://perma.cc/A5BQ-LNWC> (archived Dec. 1, 2025) (“By providing Content to the Service, you grant to YouTube a worldwide, non-exclusive, royalty-free, sublicensable and transferable license to use that Content . . .”).

365. See *YouTube Advertising*, YOUTUBE, <https://perma.cc/V2MA-6QAL> (archived Dec. 1, 2025).

366. YouTube, for example, accounted for some 10% of Google’s total global revenues in 2023. Laura Ceci, *YouTube’s Advertising Revenues as Percentage of Google’s Global Revenues from 2017 to 2024*, STATISTA (Feb. 2025), <https://perma.cc/KE3S-QVR3>.

How, practically speaking, might a reform movement end contract law's special dispensation for attention-extraction firms? The logical flaw in past judicial opinions is so glaring that effective advocacy might persuade those judges who are persuadable. Beyond that, nascent state legislative efforts to further antimonopoly goals give some room for hope. Contract law remains largely state-based,³⁶⁷ such that states have ample leeway to, for example, prohibit employers from imposing noncompete restrictions on their workers³⁶⁸—even where federal judges have stymied a federal-agency attempt to do so.³⁶⁹

None of this is to say that contract doctrine in the relevant areas—exculpatory clauses, mandatory dispute-resolution provisions, and the like—is itself optimal.³⁷⁰ But at a bare minimum, if such provisions are to be enforced at all, it should not be on the mistaken grounds that attention-extraction firms are somehow acting charitably vis-à-vis their human suppliers and users.

B. New Tools

At this fairly late stage, merely reversing course on existing, discrete legal market-channeling actions may be insufficient. Existing attention-extraction firms have acquired enormous power, both economic market (even monopoly) and political.³⁷¹ The presence of network effects across many digital attention markets, coupled with the deployment of (potentially) addictive attention-extractive product features in at least some of these markets, suggests additional steps are necessary for a reform project aiming at antidomination goals to claim success. What follows is an overview of additional tools, primarily legal but also nonlegal, that could complement the targeted changes outlined above.

1. Hard limits on attention extraction

In neoclassical economic policy circles, “competition” is often prescribed as the solution for oversupply and overconsumption. As more firms enter a particular sector and compete to attract the same pool of potential buyers, diminishing returns will eventually deter other firms from entering.³⁷² If there are too many firms in a market, the least efficient firms will exit. Either way—

367. See JOSEPH M. PERILLO, *CONTRACTS* § 1.6 (West Acad. ed., 7th ed. 2014).

368. Emily Peck, *Mapped: Where Noncompete Agreements Are Banned or Restricted*, AXIOS (Apr. 25, 2024), <https://perma.cc/3959-T9E3>.

369. Danielle Kaye, *Judge Backs Challenge to F.T.C.'s Noncompete Ban, at Least for Now*, N.Y. TIMES (July 3, 2024), <https://perma.cc/88TE-6WQ8>.

370. See Boyack, *supra* note 66, at 498-500.

371. CARPENTIER, *supra* note 8, at 2.

372. See, e.g., ROBERT S. PINDYCK & DANIEL L. RUBINFELD, *MICROECONOMICS* 48-54 (9th ed. 2018) (describing changes in market equilibrium).

the story goes—the market will stabilize at a healthy level of concentration without the need for state-fixed price or output levels.³⁷³

But in attention markets, as attention extraction and consumption by advertisers increases, human cognition can become increasingly overloaded or depleted.³⁷⁴ In this state, people are more easily distracted and persuaded.³⁷⁵ To at least some advertisers, such a state is desirable. Firms will face an ever-increasing incentive to bombard individuals with content and advertisements,³⁷⁶ a process that commentators provocatively describe as “human fracking.”³⁷⁷ The greater the competition for attention, the more valuable the remaining stock of attention becomes.³⁷⁸ Perhaps some advertisers prefer to reach potential customers when they are not distracted or depleted. But others prefer to target customers at their lowest points.³⁷⁹ Contrary to the static models and heroic assumptions employed by orthodox microeconomics, even “competitive” attention markets are not likely to yield socially healthy outcomes.³⁸⁰

A more effective response would place legislative or regulatory hard limits, akin to price caps, on the level of attention firms can extract.³⁸¹ Congress has

373. *See id.*

374. *See supra* Part III.A and accompanying text.

375. *See supra* Part III.A and accompanying text.

376. Rebecca Tushnet describes something along these lines: “As we are exposed to more and more [advertisements], it becomes harder to get our attention, so promoters are forced to further extremes.” Rebecca Tushnet, *Attention Must Be Paid: Commercial Speech, User-Generated Ads, and the Challenge of Regulation*, 58 BUFF. L. REV. 721, 725 (2010).

377. D. Graham Burnett & Peter Schmidt, Opinion, *Turning the Tide on “Human Fracking,”* DAILY PRINCETONIAN (Sept. 12, 2024, 11:18 PM EDT), <https://perma.cc/TCB7-GSQ5>.

378. Ioannis Lianos uses the term “self-reinforcing” to describe yet another unusual aspect of attention markets: The product desired by natural persons (attention producers) often contributes further to attention scarcity, making the product desired by advertisers (attention consumers) more valuable—and presumably therefore spurring further competitive efforts by attention intermediaries. *See* Ioannis Lianos, *Value Extraction and Institutions in Digital Capitalism: Towards a Law and Political Economy Synthesis for Competition Law*, 1 EUR. L. OPEN 852, 869 (2023).

379. *See, e.g.*, Michael Reilly, *Is Facebook Targeting Ads at Sad Teens?*, MIT TECH. REV. (May 1, 2017), <https://perma.cc/TL44-QLRU> (“The social network appears to leverage sensitive user data to aim advertisements at teenagers who say they feel ‘anxious’ and ‘worthless.’”).

380. *See* Falkinger, *supra* note 286, at 1597 (“[B]ecause consumers’ attention capacity is fully occupied in an information-rich economy, this type of economy also exhibits wasteful competition for attention in the sense of an inefficient amount of attention-seeking on the part of firms.”).

381. Eric Goldman suggests an alternative: a “Coasean filter” that would “effectuate [consumer] preferences” by “costlessly read[ing] their minds and . . . filtering unwanted content and soliciting wanted content.” Goldman, *supra* note 18, at 1156. These “filters” would facilitate monitoring and tracking of user behavior. *Id.* One fatal flaw in
footnote continued on next page

broad Commerce Power authority to act in this area. Consider, for example, the legislative proposal introduced by Senator Josh Hawley that would require attention-extractive intermediaries to limit each user's time on their websites to thirty minutes per day.³⁸² State law may be an even more promising vector for change—a wide range of states across the political spectrum, from Florida to California, have recently enacted statutes that limit or outright prohibit smartphone use in schools.³⁸³

An alternative to legislative action is agency regulation. The FTC, for example, has broad rulemaking authority to limit or prohibit any act or practice that “causes or is likely to cause substantial injury to consumers which is not reasonably avoidable . . . and not outweighed by countervailing benefits to consumers or to competition.”³⁸⁴ Agency-imposed caps would not be without precedent. The Federal Communications Commission already limits the amount of time cable television operators can devote to advertisements during children's programming.³⁸⁵ At the local level, municipal ordinances often prohibit excessive noise during certain hours.³⁸⁶ And so on.³⁸⁷

Goldman's proposal is its dependence on user behavior in response to advertisements, and more specifically on the assumptions that such behavior (1) accurately represents activation of a “preference,” and (2) is optimal even as to those individual users, let alone for society at large. As we have seen, there is good reason to believe that neither condition is met in the real world with any regularity.

382. Emily Stewart, *Josh Hawley's Bill to Limit Your Twitter Time to 30 Minutes a Day, Explained*, VOX (July 31, 2019, 1:20 PM PDT), <https://perma.cc/37VF-5VU3>.

383. Nirmita Panchal & Sasha Zitter, *A Look at State Efforts to Ban Cellphones in Schools and Implications for Youth Mental Health*, KFF (Sept. 5, 2024), <https://perma.cc/M8P5-VG39>.

384. *A Brief Overview of the Federal Trade Commission's Investigative, Law Enforcement, and Rulemaking Authority*, FTC (updated May 2021), <https://perma.cc/ACT9-PU9X> (quoting 15 U.S.C. § 45(n)). The FTC has been reluctant to employ this power during recent decades, but contemporary observers have begun to call in earnest for a return to a more active agency role. See Luke Herrine, *The Folklore of Unfairness*, 96 N.Y.U. L. REV. 431, 433, 528 (2021).

385. *Program Content Regulations*, FCC (updated Sept. 29, 2017), <https://perma.cc/X7CT-HRWV> (“Cable operators can transmit no more than 10.5 minutes of commercial matter per hour during children's programming on weekends, and no more than 12 minutes of commercial matter per hour on weekdays.” (citing Children's Television Act of 1990, Pub. L. No. 101-437, § 102, 104 Stat. 996, 996-97 (codified at 47 U.S.C. § 303a))). Congress directed the Federal Communications Commission to impose this cap via agency rulemaking. 47 U.S.C. § 303a(a) & (b).

386. Winnie Hu, *New York Is a Noisy City. One Man Got Revenge*, N.Y. TIMES (June 4, 2019), <https://perma.cc/37NU-HK52> (“[T]he city restricts construction to weekdays between 7 a.m. and 6 p.m. . . .”).

387. Moreover, price controls themselves are common, even in so-called “market” economies. Several governments typically thought of as overseeing market economies have, for example, imposed price controls on pharmaceuticals. See Chris Lo, *Cost Control: Drug Pricing Policies Around the World*, PHARM. TECH. (Feb. 12, 2018), <https://perma.cc/SS4P-TKEF>.

Caps on the levels of attention that firms can extract could also take the form of relatively straightforward ratio-based restrictions. As a case study, consider the United Kingdom’s regulation that prohibits certain broadcast television channels from displaying more than seven minutes of advertising per hour of broadcast time.³⁸⁸ Digital markets may be somewhat knottier. Yet the problem is not as difficult as it might appear at first blush. Rules could limit attention-extracting advertisements to a certain maximum portion of a given page, limit the number or size of advertisements allowable on a given page, and so on.³⁸⁹ Thus, for example, a statute or regulation could limit the ratio of on-screen advertising to on-screen content. The United Kingdom regulation’s seven-minute-per-hour cap effectively limits advertising to no more than 11.67% of the available time; an analogous restriction on digital attention extraction would limit advertising to no more than 11.67% of the space on screen at any given moment.³⁹⁰

Limiting advertising loads would directly cap attention extraction and consumption. It would also indirectly disincentivize attention-extraction intermediaries from vacuuming up as much attention as possible by reducing the gross amount of attention that each firm could commodify and sell.

Legislatures or agencies could also target particular product features that facilitate excessive attention harvesting. The Senate legislative proposal discussed above would also prohibit infinite scrolling and autoplay functionality for digital applications.³⁹¹ The downside of specific bans on enumerated features, of course, is that it could lead to a game of Whac-A-Mole. Attention-extraction intermediaries employ an ever-evolving array of “dark patterns,” manipulative design features, and eye-catching interfaces, ranging from push notifications to Snapchat’s “streaks” to Instagram’s strategy of spacing out users’ “likes” notifications as a Skinner-esque form of intermittent reinforcement.³⁹² A more flexible judicial standard may be ideal in theory, but would likely increase enforcement costs. Where the defendants will typically be

388. OFF. OF COMMC’NS, RULES ON THE AMOUNT AND DISTRIBUTION OF ADVERTISING § 1.1.1(A)(a) (n.d.), <https://perma.cc/YP7G-Y38N> (archived Dec. 1, 2025).

389. Whether such rules would be deemed constitutional under the Supreme Court’s contemporary First Amendment jurisprudence is, of course, an open question. *Cf.* *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525, 561-62, 565-66 (2001) (invalidating a state ban on outdoor advertising for certain tobacco products within 1,000 feet of schools or playgrounds). For a compelling critique of the Court’s absolutist turn on freedom of speech, see generally Shanor, *supra* note 207, at 206.

390. Seven maximum minutes allowable to advertisements divided by 60 total minutes per hour yields a ratio of 11.67%. *See* OFF. OF COMMC’NS, *supra* note 388.

391. Tim Mak, *Senator Pushes Bill to Curb ‘Exploitative and Addictive’ Social Media Practices*, NPR (Aug. 14, 2019, 5:00 AM ET), <https://perma.cc/9JTE-25MC>.

392. *See* Day & Stemler, *supra* note 300, at 2-3, 3 n.10, 13 (quoting Harry Brignull, *Dark Patterns: Inside the Interfaces Designed to Trick You*, VERGE (Aug. 29, 2013, 10:15 AM CDT), <https://perma.cc/M8XJ-6FAV>).

highly capitalized firms, as here, their asymmetric resource advantage over plaintiff-enforcers counsels in favor of clear, easy to enforce rules.

Less effective, though perhaps still desirable, would be a mandatory notification to users of how much time is being spent using the app or service.³⁹³ Senator Hawley’s 2019 bill would require social-media companies to deliver regular updates informing users of how much time the user has spent online each day.³⁹⁴ Other variations might require mandatory notice of the number of advertisements the user has been exposed to, the amount of time spent attending to those advertisements, or both. The efficacy of purely informative notifications is questionable.³⁹⁵ On the other hand, they do not harm users and may do some good. Some individual firms have voluntarily adopted notification features.³⁹⁶ Absent legal compulsion, such firms remain free to reverse these policies, and their rivals remain free to continue their attention-collection efforts. Nonetheless, these voluntary efforts are a proof of concept, underscoring that at least some attention-limiting features are technologically feasible and competitively viable.

2. Taxing corporate attention sales and consumption

Current tax policy uniquely encourages attention extraction and sales in a variety of ways, to the extent that attention commodification has become a “tax shelter.”³⁹⁷ Attention consumers (advertisers) can immediately deduct 100% of their spending on attention each year, sales of attention generally trigger no sales taxes, and users get access to valuable digital products and services without paying any income (or income-like) taxes.³⁹⁸ This legal treatment has transferred wealth into highly capitalized attention-extraction firms and channeled activity into attention markets,³⁹⁹ which cause harmful spillover effects.⁴⁰⁰

393. Such notifications can take many forms, as TikTok’s celebrity-delivered introduction of screen-time notifications in 2020 illustrates. See Cormac Keenan, *Introducing Family Safety Mode and Screentime Management in Feed, TIK TOK* (Feb. 19, 2020), <https://perma.cc/39XM-68QH>.

394. Mak, *supra* note 391.

395. Rani Molla, *Tech Companies Tried to Help Us Spend Less Time on Our Phones. It Didn’t Work.*, VOX (Jan. 6, 2020, 9:30 AM PST), <https://perma.cc/9VZ5-CT7Q> (“[A] year after Big Tech rolled out their time-well-spent features, it doesn’t seem like they’re working: The time we spend on our devices just keeps increasing.”).

396. See *How to Use TikTok’s Screen Time Prompts to Set Limits & Breaks*, BUSTLE (updated Feb. 20, 2024), <https://perma.cc/Z75A-V6RW>.

397. DALE L. FLESHER, ACCOUNTING FOR ADVERTISING ASSETS 2 (1979).

398. See *supra* Part I.A.4.

399. See *supra* Part I.A.4.

400. See *supra* Part III.C.

Taxing corporate attention sales and consumption is justified on general tax-law grounds or as a Pigouvian measure. As to the former, the current treatment of deductibility is effectively a tax expenditure with no clear policy rationale except to subsidize the advertising industry.⁴⁰¹ As to the latter,⁴⁰² corporate attention consumption creates (in economic lingo) negative externalities. And corporate attention consumption could be taxed directly, making it well-suited for Pigouvian taxation.⁴⁰³ To be clear, such a tax would not be borne by human users, who are the producers—not the consumers—of attention.⁴⁰⁴ Instead, it would be levied on consumers.⁴⁰⁵ In attention markets, advertisers are the end consumers of the relevant product.⁴⁰⁶

Policymakers can choose from a wide range of options when using tax law to restructure attention markets. Again, current deductibility treatment is one potential target for reform. Firms could be required to capitalize advertising

401. See Malin, *supra* note 111, at 8 (proposing treating the advertising deduction as a tax expenditure).

402. See, e.g., Christopher R. Knittel & Ryan Sandler, *The Welfare Impact of Indirect Pigouvian Taxation: Evidence from Transportation 1* (Nat'l Bureau of Econ. Rsch., Working Paper No. 18849, 2013) (“A basic tenet of economics posits that when consumers or firms do not face the true social cost of their actions, market outcomes are inefficient. In the case of externalities, Pigouvian taxes provide one way to correct this market failure, and the optimal tax or subsidy leads agents to internalize the true cost of their actions.”).

403. This is not always the case; directly taxing externality-producing conduct is sometimes impracticable, as is arguably the case with automobile emissions. See *id.*

404. See *supra* text accompanying notes 264–70 (explaining that the human user is the producer of attention). The present proposal should be distinguished from an “attention tax” like the one proposed by Andrew Kortina and Namrata Patel. See Andrew Kortina & Namrata Patel, *Kinky Labor Supply and the Attention Tax*, ANDREW KORTINA (Oct. 13, 2018), <https://perma.cc/FRW7-JHBG>. That proposal was aimed at the perceived problem of excessive time spent by natural persons on “unproductive leisure activities,” *id.*, rather than the problem of negative externalities. See *id.* Because it was aimed at natural persons’ spending time on such activities, that “attention tax” would most naturally fall on natural persons themselves, though Kortina and Patel recognize that such a tax would be a political nonstarter. *Id.* As a second-best alternative, the authors suggest taxing media companies. *Id.* That proposal aligns more closely with the present one, although it would rest on quite different policy grounds.

405. This follows from the Pigouvian purpose for such a tax, to be distinguished from a traditional revenue-raising tax. On the latter, see C. Edwin Baker, *Advertising and a Democratic Press*, 140 U. PA. L. REV. 2097, 2197 (1992).

406. The present proposal should also be distinguished from advertising-tax proposals meant to alleviate different problems, like Paul Romer’s proposal to tax targeted digital advertisements to address various perceived harms from the business models used by “dominant digital platform companies” and to incentivize large tech firms to adopt more user-friendly strategies. See Paul Romer, Opinion, *A Tax that Could Fix Big Tech*, N.Y. TIMES (May 6, 2019), <https://perma.cc/F78N-ZTTW> (“Ad-driven platform companies could avoid the tax entirely by switching to the business model that many digital companies already offer: an ad-free subscription. Under this model, consumers know what they give up, and the success of the business would not hinge on tracking customers with ever more sophisticated surveillance techniques.”).

spending over time, instead of receiving a 100% immediate deduction. This would reduce, though not eliminate, tax incentives for attention consumption.⁴⁰⁷ Importantly, it would not require legislative action. Instead, the Internal Revenue Service could simply revoke Revenue Ruling 92-80.⁴⁰⁸ Alternatively, and perhaps easier to administer, Congress could limit the deductibility permitted to a fraction, as a bipartisan effort in the mid-2010s would have done by reducing the present-year deductibility of advertising expenditures to 50%.⁴⁰⁹ Or, more powerfully, Congress could eliminate deductibility altogether.⁴¹⁰

Legislatures—state or federal—could also impose an excise tax on attention sales, a tax that could be levied on either attention-extraction intermediaries or advertisers who purchase and consume attention. Annual U.S. advertising spending was expected to top \$455 billion in 2025.⁴¹¹ What percentages might be appropriate for a tax on corporate attention consumption? As of 2023, Colorado charged the lowest nonzero state-level sales tax, at 2.9%, and California charged the highest, at 7.25%.⁴¹² To the extent the attention tax is meant to be Pigouvian in nature—that is, to allocate costs from a societally harmful activity onto those who cause them—the rates should likely be considerably higher. For example, the average combined state and federal tax on a pack of cigarettes in 2024 was \$2.94,⁴¹³ and the average retail price was \$8.00,⁴¹⁴ for an effective rate of 36.75%. The lone state that has imposed a digital advertising tax, Maryland, adopted a progressive tax rate that ranges from 0% for firms with less than \$100 million in global gross annual revenue to 10% for firms with more than \$15 billion in global gross annual revenue.⁴¹⁵ This progressive structure would have

407. Of course, any moves in this area could raise questions of constitutionality. Cf. Steven M. Cohen, Note, *A Tax on Advertising: First Amendment and Commerce Clause Implications*, 63 N.Y.U.L. REV. 810, 810-11 (1988).

408. Rev. Rul. 92-80, 1992-2 C.B. 57. This Author thanks Reuven Avi-Yonah for this insight.

409. See Naomi Jagoda, *Lawmakers: Leave Advertising Tax Break Alone*, HILL (May 17, 2017, 6:00 AM ET), <https://perma.cc/T5A6-A7RR>.

410. See Alida F. Babcock, Note, *Laws and Taxes and Big Tech, Oh My! The Case for a Federal Excise Tax on Targeted Digital Advertisements Created by Use of Personally Identifiable Data*, 99 WASH. U. L. REV. 271, 274 (2021) (suggesting the elimination of the deduction for the purchase of personally targeted advertisements).

411. *Advertising—United States*, STATISTA, <https://perma.cc/F4YF-4UCE> (archived Jan. 20, 2026).

412. Janelle Fritts, *State and Local Sales Tax Rates, 2023*, TAX FOUND. (Feb. 7, 2023), <https://perma.cc/9TGH-L6H8>.

413. *Economic Trends in Tobacco*, CDC (Sept. 17, 2024), <https://perma.cc/66R7-95EX>.

414. *Cigarette Prices by State 2025*, WORLD POPULATION REV., <https://perma.cc/5YJJ-N9B2> (archived Dec. 2, 2025).

415. Lauren Loricchio, *Maryland Becomes First State to Adopt Digital Ad Tax*, TAX NOTES (Feb. 16, 2021), <https://perma.cc/FTM9-XYF9>.

the salutary side effect of tending to disperse, rather than to concentrate, economic power.

3. Limiting abuse of contract

Contract law has assumed a leading role in the superstructure of U.S. market activity.⁴¹⁶ Firms operating in digital markets, in particular, have used the vehicle of contract law to arrogate power to themselves and away from their counterparties.⁴¹⁷ And, as described above, courts have extended special legal dispensations to attention-extractive intermediaries above and beyond the affordances to other firms.⁴¹⁸ All of this has tended to channel activity into attention markets and to concentrate power in the hands of a few highly capitalized corporate entities and owners. To reverse course, then, more than mere corrective changes to the discrete dispensations noted above may be necessary.

Digital “terms of service” (sometimes known as “terms of use”) nearly always contain a number of especially troubling boilerplate terms.⁴¹⁹ These include mandatory arbitration requirements, often coupled with class action waivers or jury trial waivers, disclaimers of liability, and more.⁴²⁰ Collectively, these one-sided terms not only effectively deprive individuals of any meaningful breach-of-contract claims but also disincentivize the vindication of other important legal rights ostensibly granted by privacy, consumer-protection, antitrust, and civil rights laws.⁴²¹

Limiting attention-extractive firms’ ability to engage in abuse of contract could thus play a significant role in dispersing currently concentrated power. Legislative or administrative action could do so, as recent and ongoing efforts illustrate. Congress has, for example, enacted a number of statutes that limit firms’ ability to impose one-sided contract terms.⁴²² The FTC has limited abuse

416. Alan Stone, *The Place of Law in the Marxian Structure-Superstructure Archetype*, 19 LAW & SOC’Y REV. 39, 44 (1985).

417. See Boyack, *supra* note 66, at 498-99; Mark A. Lemley, *The Benefit of the Bargain*, 2023 WIS. L. REV. 237, 256 (2023).

418. See *supra* Parts I.A.1, I.A.3-5.

419. For the seminal work on boilerplate abuse, see generally MARGARET JANE RADIN, *BOILERPLATE: THE FINE PRINT, VANISHING RIGHTS, AND THE RULE OF LAW* (2013).

420. Boyack, *supra* note 66, at 511-12.

421. *Id.* at 509 (consumer protection and civil rights), 514 (breach of contract), 520 (privacy); see also Deepak Gupta & Lina M. Khan, *Arbitration as Wealth Transfer*, 35 YALE L. & POL’Y REV. 499, 518 (2017) (“Since forced arbitration clauses and class action bans tend to preclude private antitrust suits, the rise of arbitration will enable firms with monopolistic power to abuse that power with greater impunity.”).

422. See, e.g., 10 U.S.C. § 987(e)(2) (prohibiting waivers of rights in contracts with covered members of the armed services); 15 U.S.C. § 45b (prohibiting firms from limiting consumers’ ability to write negative product reviews).

of contract under both its “[u]nfair methods of competition”⁴²³ and its “unfair act or practice” rulemaking authority.⁴²⁴ And the Consumer Financial Protection Bureau has issued a notice of proposed rulemaking that would prohibit firms from enforcing unilateral-amendment terms—terms that purport to waive statutory consumer-protection provisions and terms that purport to limit rights to free expression in the form of (for example) negative product reviews.⁴²⁵ A reform project could make significant headway by extending these prohibitions to include mandatory arbitration clauses (especially when coupled with class action waivers), broad disclaimers of liability, and blanket waivers of privacy rights. Contract law is a powerful tool for shaping markets, and it could channel activity and distribute power in far more just ways than it has done to date.

Conclusion

The spectacle of several massive attention-extractive firms prominently represented at a U.S. presidential inauguration prompted warnings that the nascent efforts to rein in these firms’ power were doomed.⁴²⁶ But instead of dropping or settling landmark antitrust cases against Google, Meta, and Amazon, the DOJ’s Antitrust Division and the FTC have pressed on.⁴²⁷ Their persistence is an encouraging sign of a growing bipartisan awareness that in at

423. 16 C.F.R. § 910.2 (2025) (prohibiting most noncompete restrictions in employment contracts), *invalidated by*, *Ryan, LLC v. FTC*, 746 F. Supp. 3d 369 (N.D. Tex. 2024). Another federal district court preliminarily enjoined the new rule. *Properties of the Villages, Inc. v. FTC*, No. 24-cv-316, 2024 WL 3870380, at *1 (M.D. Fla. Aug. 15, 2024). Under new political leadership, the FTC voted to accede to the *Ryan* court’s vacatur of the rule. See Press Release, FTC, Files to Accede to Vacatur of Non-Compete Clause Rule (Sept. 5, 2025), <https://perma.cc/R9Y9N-2GKU>. But a third federal district court, analyzing similar facts as the *Ryan* and *Villages* courts, denied a request for a preliminary injunction of the rule, finding that the challenger had not established a likelihood of success. See *ATS Tree Servs., LLC v. FTC*, No. 24-1743, 2024 WL 3511630, at *11 (E.D. Pa. July 23, 2024). And several well-respected legal scholars have endorsed the existence of the FTC’s competition rulemaking authority. See Rohit Chopra & Lina M. Khan, *The Case for “Unfair Methods of Competition” Rulemaking*, 87 U. CHI. L. REV. 357, 366 n.39 (2020) (collecting sources).

424. 16 C.F.R. § 444.2(a)(1) (2025) (prohibiting lenders from, among other things, imposing obligations on consumers that contain a “cognovit or confession of judgment . . . , warrant of attorney, or other waiver of the right to notice and the opportunity to be heard”).

425. Prohibited Terms and Conditions in Agreements for Consumer Financial Products or Services, 90 Fed. Reg. 3566, 3596 (proposed Jan. 14, 2025) (to be codified at 12 C.F.R. pt. 1027).

426. See, e.g., CBC NEWS: THE NATIONAL, *Trump and Big Tech Bromance: Should We Be Worried?*, at 4:04-4:13 (YouTube, Jan. 27, 2025), <https://perma.cc/4CRG-QSVL> (to locate, select “View the live page”).

427. Zachary Basu & Ashley Gold, *Big Tech’s Inauguration Hangover*, AXIOS (May 8, 2025), <https://perma.cc/WF9Q-ZKVN>.

least antitrust law, excessive prices should not be the sole target of government action. Attention may be intangible, but it is a critically important subject for legal reform. Like labor, it emanates from natural persons and has been commodified, and has thus come to play a significant role in contemporary economies. But for too long, the role of law in shaping attention markets has gone largely overlooked. Under the sway of self-interested attention-extractive intermediaries and orthodox law-and-economics frameworks, general trade-regulating laws have channeled activity into attention markets and concentrated power in the hands of a few enormous firms. Reversing course will not be easy, but the approach advanced in this Article offers a coherent path toward a more just restructuring of attention markets. A different future is possible: one in which less human activity is channeled into for-profit attention markets, attention-extractive firms wield less influence over political arenas, and currently concentrated power is dispersed among the people—artists, authors, viewers, and users—who supply creative labor and scarce attention.