

**Before the
FEDERAL TRADE COMMISSION
Washington, D.C. 20580**

**In Re: PETITION FOR
RULEMAKING UNDER
15 U.S.C. § 57 (a) SEEKING
REGULATION OF ADVERTISING
TECHNOLOGY COMPANIES
AND AGENCIES ENGAGED
IN *PROGRAMMATIC ADVERTISING***

Docket No. _____

PETITION FOR RULEMAKING

Petitioner: Jonathan Askin
Professor of Clinical Law
Brooklyn Law School
250 Joralemon Street
Brooklyn, NY 11201
jonathan.askin@brooklaw.edu
1-718-780-0622

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Table of Contents

I. Introduction	4
A. Petitioner	4
B. Summary	4
C. Legal Action Requested	6
D. Outline of Proposal	7
E. FTC’s Visions and Priorities	7
II. Legal Background	8
A. FTC as Privacy Regulator	9
B. FTC as Antitrust Enforcer	10
1. DoubleClick Statement	11
C. Current Approaches to “Regulate” Programmatic Advertising	15
1. Self-Regulation	15
2. Privacy Policies	16
3. Fair Information Practice Principles	19
D. A More Viable Approach and Analogous Precedent	20
III. Factual Background: Programmatic Advertising	23
A. Introduction	23
B. How an Ad is Bought and Sold Programmatically	26
1. Media Planning Process	26
2. Key Performance Indicators	26
3. Supply Chain Nodes	27
4. Bid Requests	29
5. Focus: User Object	30
6. Sending Bid Requests to Ad Buyers	32
7. Ingestion of Bids and Win/Loss Signals	33
8. Winning Bids and Ad Delivery	34
C. Demand-Side Incentives and Related Issues	34
1. Performance Marketing and Attribution Do Not Work	34
2. “Just Spend the Money”	38
3. Internal Auctions	39
4. Desire to See the Entire User Journey	40
D. Supply-Side Incentives and Related Issues	41
1. Data Broker Fraud	42
2. Low Quality and Fraudulent Supply	44
3. More, Bigger Ads	45
4. Pricing and Vicious Cycles	46
E. Technical Issues	49

1. Discrepancies	49
2. Poor Site Performance and the Ad Tech Tax	50
IV. Rule	52
A. Scope and Purpose	52
B. Definitions	53
C. Auction Rules	56
1. Data Format and Objects; HTTP Connections	56
2. Ad-Specific Information	56
3. Supply Side Practices	58
4. Demand Side Practices	59
E. Permitted Objects and Object Model	60
V. Market Impacts	61
A. Introductory Note	61
B. Predicted Changes	62
1. Antitrust	62
2. Lower Technical Costs	62
3. Lower Legal Costs	62
4. Improved User Experience	63
5. Shift in Demand-Side Behavior	63
6. Adherence to FIPPS	63
C. Alternatives	64
VI. Conclusion	65

I. Introduction

A. Petitioner

Petitioner is a Professor at Brooklyn Law School and the Founder of the Brooklyn Law Incubator and Policy (“BLIP”) Clinic. Petitioner founded BLIP in 2008 to provide free legal support to socially virtuous, bootstrapped start-ups, often pursuing ventures that analog laws have not anticipated. To that end, Petitioner often advocates for policy reform to advance the needs of startups and society in the Digital Age. Petitioner has worked with more than 1,000 clients on incorporation, intellectual property protection, licensing agreements, web documentation, and has provided policy and litigation support and other general legal counseling. Petitioner has worked on policy initiatives relating to technology, internet and telecommunications services, data privacy, digital rights, open source, blockchain, fintech, corporate structure and governance reform, and other policy advocacy projects. Petitioner selects clients based on the extent to which the issues implicate Internet or digital economy issues of first impression with potential systemic consequences and may require creative and complex legal and technical analysis. Petitioner believes that programmatic advertising and the practices of the “ad tech” industry have had and will continue to have serious detrimental impacts on startups, on users, and on society without FTC intervention.

B. Summary

At some point over the past few decades, we, as a society, have decided, intentionally or not, to accept the process of viewing ads in exchange for consuming “free” content on the internet. Nowadays, this trend goes even further -- instead of seeing ads in exchange for free content, people now unwittingly provide countless unknown advertising technology companies with vast amounts

of our personal data in exchange for a few brief moments of attention on a sensationalized article, overwhelmed by ads and slow page loads. For every search, click, scroll, and mouse movement, we initiate an absurdly complex process in which dozens of programmatic ad tech firms are harvesting, sharing, and eventually auctioning our attention to advertisers around the world.

The ad tech industry, as a whole, currently opts to self-police in order to promote “fair” and “non-deceptive” trade practices. However, there is no meaningful self-regulation at all, and ad tech companies have been left unchecked to develop unfair, deceptive, and privacy-invasive trade practices. Despite increasing scrutiny, the ad tech industry is showing no signs of stopping or even of slowing down on its march towards improved measurement, tracking, and user-level targeting through programmatically bought advertisements.

The current financial prospects and revenue models for websites, app developers, coupled with consumers’ entrenched expectations not to pay for content, have created a *status quo* in the programmatic supply chain that minimizes transparency and maximizes personal data collection and sales in a deceptive manner. In the absence of FTC guidance or rulemaking proceedings, the digital advertising industry has developed unscrupulous and, in some instances, knowingly fraudulent behavior at all points in the supply chain.

This petition requests that the FTC exercise its authority to address a series of unfair, deceptive, and anticompetitive trade practices throughout the programmatic advertising practice.

First, the FTC should commence rulemaking proceedings to deem the sharing of the “User Object” (Personal information) without a “Deterministic Login” (a user inputs an email address or creates a similar username to gain use of the site or app) during programmatic ad auctions to be an unfair or deceptive trade practice.

Second, the FTC should issue a best-practices document to help standardize the collection, recording, counting, sale, and exchange of user information in programmatic advertising auctions by suggesting the adoption of a uniform application programming interface (“API”) protocol.

Third, the FTC could consider establishing a Technical Advisory Committee comprised exclusively of privacy-focused professionals and those without an interest in monetizing the exchange of user information to flesh out the full details of an ideal API for the programmatic advertising industry.

Lastly, the FTC should ban a series of related, unscrupulous, anti-user/consumer, day-to-day practices at ad tech companies and agencies who participate in these programmatic advertising markets.

These measures would establish desperately needed antitrust objectives by lowering switching costs, reducing network effects, and lowering the costs of entry for new market participants who do not have as comprehensive user-bases as compared to Google or Facebook. These measures would also eliminate privacy-invasive and deceptive behaviors by eliminating any incentive to collect, directly or indirectly, user information for the purpose of behavioral advertising.

C. Legal Action Requested

This petition, filed in connection with 5 U.S.C. § 553(e) and 15 U.S.C. § 45, requests that the FTC exercise its authority under 15 U.S.C. § 57(a) to address a series of unfair, deceptive, and anticompetitive trade practices throughout the programmatic advertising (referred to interchangeably as “ad tech,” “OpenRTB,” “programmatic,” or “RTB” throughout) ecosystem. Specifically, Petitioner request the FTC, as soon as feasible, commence rulemaking proceedings under § 553 of the Administrative Procedure Act to define and prescribe the programmable

“Objects” exchanged in programmatic advertising auctions, using the **OpenRTB API Specification Version 2.5**¹ and this petition as a guide. The proposed rule also calls for a ban on a series of related, unscrupulous, anti-user/consumer, day-to-day practices at ad tech companies and agencies who participate in these programmatic advertising markets. Petitioner hopes that in promulgating a notice of proposed rulemaking in the Federal Register, industry interests both large and small will contribute to the rulemaking proceedings and help refine and improve the suggested rule outlined below.

D. Outline of Proposal

This rule proposal (“Proposal”) first discusses in Section II the role of the FTC in the legal contexts of online privacy, digital advertising, and related antitrust matters. The Proposal then addresses the current “regulatory” landscape, and the weaknesses of existing approaches. Then, the Proposal suggests regulation using a form of “programmable law” that will enable regulated parties to quickly and easily comply with the rule, while allowing the FTC to easily audit to ensure compliance.

Section III goes into detail concerning first the mechanics and then the issues that exist in programmatic advertising at various points of the supply chain.² Then, the full text of the rule is provided in Section IV. Section V explains the anticipated market impacts of the rule, with particular focus on alleviating the issues described in Section III. Finally, Section VI of the Proposal concludes that this rule will achieve the antitrust and privacy goals that the FTC should and does strive for.

E. FTC’s Visions and Priorities

¹ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB Real Time Bidding (RTB) Project, Dec. 2016, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

² The Proposal suffers from a lack of supply-side expertise and input that hopefully will be supplied by the Notice and Comment period under APA § 553.

On September 22, 2021, FTC Chair Lina M. Khan released a memo to FTC staff outlining visions and priorities for the FTC³. This petition will help to achieve Chairperson Khan's vision and priorities in several relevant ways.

First, Chairperson Khan asked the agency to take a holistic approach to identify harms, recognize consumer protection, and focus on power asymmetries. Chair Khan wants the FTC to focus on how unfair and deceptive practices are related to the FTC's competition mission. The proposed rule, when adopted, will meaningfully reduce the competitive advantage that the largest advertising-reliant platforms have by hindering their ability to share and leverage user-specific information outside of their core products.

Second, Chairperson Khan emphasized that enforcement efforts should target root causes rather than looking at one-off effects. This Petition will help to achieve this mission by identifying the structural incentives of the programmatic advertising industry and offering solutions that target and rectify root causes. This Petition proposes rules to replace the FTC's previous whack-a-mole approach in enforcing privacy issues, which imposes a significant enforcement burden with few long-term benefits.

Furthermore, Chairperson Khan also emphasized the importance of being forward-looking and being especially attentive to next-generation technologies, innovations, and nascent industries across sectors. This Petition echoes this mission by proposing rules to target programmatic advertising technology, a disruptive, innovative technology and process that has developed and evolved dramatically in the past decades without meaningful regulation or informed oversight.

II. Legal Background

³https://www.ftc.gov/system/files/documents/public_statements/1596664/agency_priorities_memo_from_chair_lina_m_khan_9-22-21.pdf.

A. FTC as Privacy Regulator

The FTC has emerged as the primary federal privacy regulator in the United States.⁴ To achieve this status, the FTC has used its authority under 15 U.S.C. § 45 to stamp out unfair or deceptive acts – those practices that “cause or are likely to cause reasonably foreseeable injury within the United States.”⁵ Despite this excellent track record,⁶ the FTC has, for the most part, acted reactively and has not promulgated any binding rules in the digital advertising space despite having the authority to do so.⁷

For example, the FTC’s “Rules of the Road” for digital advertising are more than twenty years old;⁸ the FTC’s Self-Regulatory Principles for Online Behavioral Advertising are more than 12 years old;⁹ and the FTC’s latest report to Congress on Consumer Privacy Online was issued in 1998.¹⁰ And while the FTC more recently published helpful guidance for Native Advertising,¹¹ the guidance focused solely on the *content* of the ad as it is viewed by the consumer,¹² rather than the data used to place the ad. In another recent informal publication, the FTC’s *Privacy & Data Security Update: 2018*, the FTC cites a handful of flagrant invasions of privacy and touts its consent decrees as fixing clear violations of law.¹³

⁴ Solove & Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583 (2011).

⁵ Solove & Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583 (2011).

⁶ Solove & Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583 (2011).

⁷ <https://www.ftc.gov/about-ftc/what-we-do/enforcement-authority>.

⁸ <https://www.ftc.gov/tips-advice/business-center/guidance/advertising-marketing-internet-rules-road>

⁹ <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-staff-report-self-regulatory-principles-online-behavioral-advertising/p085400behavadreport.pdf>

¹⁰ <https://www.ftc.gov/tips-advice/business-center/guidance/advertising-marketing-internet-rules-road#protecting>

¹¹ <https://www.ftc.gov/tips-advice/business-center/guidance/native-advertising-guide-businesses>. Native advertising is XYZ

¹² *Id.*

¹³ FED. TRADE COMM’N, *Privacy & Data Security Update: 2018* (Jan. 2018-Dec.2018),

<https://www.ftc.gov/system/files/documents/reports/privacy-data-security-update-2018/2018-privacy-data-security-report-508.pdf>.

The FTC, however, has yet to issue a rule to *proactively* and *prospectively* police invasions of privacy in programmatic advertising. Instead, the FTC continues to take never-ending, whack-a-mole, catch-up approaches in enforcing privacy expectations, looking only for those most easily discernible privacy misrepresentations and imposing fines and injunctions on atrocious behavior.¹⁴ Meanwhile, technological advances in the advertising industry have taken monumental steps forward in the ability to track, measure, and influence individuals. For reasons explained in further detail below in Section II.C, the FTC’s current approach to privacy in programmatic advertising is inadequate, inefficient, and ineffective. Instead of “self-regulation” and publishing vague, standardless, and unenforceable information “principles,” the FTC needs to promulgate a prescriptive and objectively measured, language-neutral set of programmable objects to be exchanged in OpenRTB advertising.

B. FTC as Antitrust Enforcer

Over the past several decades, the FTC has succeeded in enforcing several of the nation’s foundational antitrust laws.¹⁵ While this Proposal primarily aims to address privacy harms, fraud, and economic incentives in programmatic advertising, the Proposal also will meaningfully reduce the competitive advantage that Google, Facebook, Instagram, and similar platforms have by hindering their ability to share and leverage user-specific information outside of their core products.¹⁶ The rule will also help address what Petitioner feels is long overdue – a reassessment of the Google and DoubleClick merger.

¹⁴ Solove & Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583 (2011).

¹⁵ <https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/enforcers>.

¹⁶ Google’s core product is Search; Facebook’s core product is in-feed advertising for the Facebook app or website; Instagram’s core product is in-feed advertising.

The FTC’s approval of the merger between Google and DoubleClick permitted what many consider the most pivotal combination in digital advertising history.¹⁷ Unfortunately, the FTC’s assumptions and predictions about digital advertising markets in its 2012 *Statement Concerning Google/DoubleClick*¹⁸ (“DoubleClick Statement”) have proved profoundly inaccurate and, by failing to fulfill its promise to “closely watch these [digital advertising] markets,”¹⁹ the FTC has allowed to flourish the exact type of anti-competitive (and privacy-invasive) harm it is tasked to eliminate.

1. DoubleClick Statement

The FTC’s 2012 DoubleClick Statement was issued following a review under the Clayton Act of Google’s purchase of DoubleClick.²⁰ In approving the merger, the FTC noted that DoubleClick does not “*sell any sort of advertising.*”²¹ While this statement was correct in that DoubleClick did not operate any content-producing websites that literally sold empty ad space to advertisers, it still *sold advertising services* to advertisers by enabling cross-site tracking for those advertisers, thereby improving the ability to measure ad effectiveness across multiple web properties. Thus, from the outset, the FTC was operating under incorrect assumptions about how digital advertising “sales” really function. Just as Uber does not literally sell “any cabs,” one could never logically conclude that Uber “does not sell any sort of cab service.”

The DoubleClick Statement explained how publishers at the time monetized their websites, and made a critical distinction between premium direct sales, premium indirect sales, and non-

¹⁷ <https://www.nytimes.com/2020/09/21/technology/google-doubleclick-antitrust-ads.html> Steve Lohr author. NYT. Published Sept. 21, 2020; Updated Oct. 20, 2020

¹⁸ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf.

¹⁹ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 13

²⁰ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 1-2.

²¹ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 3 (emphasis added).

premium indirect sales (also known as “remnant” inventory sales).²² The former, direct sales, is still done by publishers negotiating directly with advertisers, while the latter two methods use “ad intermediaries,” which this Proposal often refers to as “ad tech” companies, to facilitate the “sales.”²³ The evidence showed at the time that indirect sales could not substitute for direct sales because premium inventory was sold at rates multiple times higher than indirect sales, and that intermediaries created significant risks that unsavory ads would show up on publishers’ websites.²⁴ The FTC believed that “it is difficult, if not impossible, to run precisely targeted ad campaigns through ad intermediation providers.”²⁵ The DoubleClick Statement also claimed that Google itself was only an ad intermediary (such as an ad network or ad exchange) and competed in a highly competitive and fragmented market.²⁶

Within a few short years, these statements each proved to be profoundly inaccurate. First, while direct sales are always a strong source of revenue, the development of “header bidding” has allowed publishers to receive the same price on direct sales compared to sales through indirect channels or ad tech intermediaries.²⁷ Second, companies such as Integral Ad Safety²⁸ or DoubleVerify²⁹ offer significant brand safety protections for publishers and advertisers alike when purchasing ads through ad tech intermediaries. Third, the claim that it is impossible to run targeted ad campaigns through intermediaries like Google would be an affront to Google’s entire business model today, as well as any other DSP.

²² https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 4.

²³ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 4.

²⁴ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf. At 4.

²⁵ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 5.

²⁶ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 5.

²⁷ Ratko Vidakovic, *Header bidding: What marketers need to know*, MARKETING LAND, Mar. 28, 2020, <https://marketingland.com/header-bidding-marketers-need-know-199311>.

²⁸ <https://integralads.com/solutions/brand-safety-suitability/>;

²⁹ <https://doubleverify.com/capabilities-brand-safety/>.

The DoubleClick Statement then moved on to discuss various predicted effects of the merger on competition under several theories of antitrust law. First, when assessing the claim that the merger would threaten to eliminate competition, the FTC held that the evidence showed “that all online advertising does not constitute a relevant antitrust market”³⁰ and that “the proposed transaction would still not eliminate direct competition, because DoubleClick, unlike Google, does not currently sell advertising inventory.”³¹ Again, the presumption that DoubleClick does not “sell” advertising was faulty from the start. But more importantly, the claim that “all online advertising does not constitute a relevant antitrust market” is illogical and doomed the entire merger review from the outset. The FTC argued that because “[a]dvertisers purchase different types of ad inventory for different purposes,” then “one type [of advertising would] ... not significantly constrain the pricing of another.”³²

While price is of course a factor in advertising, if you were to ask a brand what the most important capability an ad tech company has, they would most likely say that *visibility across all types and channels of online advertising* is the most important factor when deciding which software platform to use. This is because visibility across multiple “channels” of advertising allows brands to measure and track the effectiveness of their ads more efficiently and without any blind spots. Thus, the purchase of DoubleClick, in combination with Google’s search offerings, Gmail, and other proprietary information, are the exact type of market combinations the FTC should have sought to prevent due to network effects and subsequent switching costs. It is irrelevant that search ads are purchased for direct response campaigns, while directly purchased ads are done to expand brand awareness, with different pricing for each.³³ What truly matters is the ability of a brand to

³⁰ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 7

³¹ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 7.

³² https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 7

³³ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 7.

be able to look, within a single platform, at how well the brand is spending its money and to understand which ads are working better or worse than others. The relevant market *is* all online advertising, not goal-specific advertising campaigns.

In addition, the FTC’s claim that third party ad serving is a “commodity good”³⁴ is no longer accurate. Third party ad serving used to be a matter of allowing a third party to simply place ads on the page for a publisher or allow an advertiser to track which ads it served across various websites.³⁵ The FTC felt that due to high levels of competition,³⁶ Google’s acquisition of DoubleClick would not violate anti-trust law. However, after the acquisition, Google has slowly siloed off its DoubleClick-based data and other products such as YouTube,³⁷ which effectively rendered other third-party ad servers moot due to their slowly shrinking scope of visibility.

The greatest failing in this Statement, though, was in its predictions as to the effects of merging the DoubleClick dataset with Google’s other datasets. After such a merger, it was rightly argued by opponents that there would be high “switching costs” to move off of Google’s products to competitors’ products.³⁸ The FTC, with unstated “evidence,” found with rather conclusory remarks that “third party ad serving markets are competitive and are likely to become even more so in the future” and that switching costs would not be high. The FTC found that this corporate combination and network effects would not tip the market because of the alleged competition in the market at the time, the different purposes each ad tech company served, and the assumption that each provider would stick to its lane and offer only specialized products.³⁹ One only needs to

³⁴ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 9.

³⁵ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 6.

³⁶ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 6

(“DoubleClick is the leading firm in the third party ad serving markets. It faces competition from several significant competitors in the United States, such as 24/7 Real Media, aQuantive, and ValueClick.”)

³⁷ <https://www.adexchanger.com/ad-exchange-news/googles-removal-third-party-pixels-youtube-means-marketers/>.

³⁸ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 10.

³⁹ https://www.ftc.gov/system/files/documents/public_statements/418081/071220googleadc-commstmt.pdf at 10-11.

read the Wall Street Journal’s *Visual Guide* on Google’s dominance to understand that switching off of Google for any website is like going through withdrawal from a “crack addiction” – a traumatizing experience for anyone unfortunate enough to go through it.⁴⁰

In conclusion, the FTC needs to readdress the market conditions that exist in the programmatic ecosystem and understand how its inaccurate predictions have created an oligopoly in the ad tech space on the supply and demand sides of the market.

C. Current Approaches to “Regulate” Programmatic Advertising

1. Self-Regulation

The ad tech industry as a whole currently opts to self-police in order to promote fair and non-deceptive trade practices. In theory, this is a favorable approach for the FTC itself because it avoids the need for the FTC to promulgate rules with the force of law and therefore avoids the costs associated with notice and comment rulemaking proceedings. Such self-policing also allows for industry participants to “follow the herd” in their stated privacy approaches and avoid scrutiny for out-of-the-ordinary practices. Those who do not follow the guidelines issued by bodies such as the Network Advertising Initiative (“NAI”) or the Digital Advertising Alliance (“DAA”) risk being targeted by the FTC for violations of the FTC Act for unfair or deceptive trade practices, which in theory enhances the efficacy of such self-policing.⁴¹

When one looks closely at what these self-regulatory organizations actually do, however, one would find – unsurprisingly – that not much policing actually occurs. For example, according

⁴⁰ Keach Hagey and Vivien Ngo, *How Google Edged Out Rivals and Built the World’s Dominant Ad Machine: A Visual Guide*, WALL ST. J. (Nov. 7, 2019), <https://www.wsj.com/articles/how-google-edged-out-rivals-and-built-the-worlds-dominant-ad-machine-a-visual-guide-11573142071> (“Media companies are so reliant on the proprietary advertising demand flowing through Google’s AdWords that one executive at a major publisher referred to it as ‘crack.’”).

⁴¹ See Generally Solove & Hartzog – new common law of privacy

to the NAI, if a member violates the NAI Code of Conduct, and the member refuses to correct the violation, the NAI will refer the matter to the FTC.⁴² After much research,⁴³ it has proven impossible to find a *single* publicly available instance of such a referral. Given that NAI has paying members across the ad tech industry, it is no surprise that there are few (if any) reports of member violations to the FTC, especially if one of those paying members is Google. The cynical but logical conclusion is that the NAI does not want to risk losing its only means of funding. As a result, there is no meaningful self-regulation at all, and ad tech companies are now running rampant with unfair, deceptive, fraudulent, and privacy-invasive trade practices.

Even more alarming is a look at how the NAI actually spends its time. On its homepage is a link to the NAI “Public Policy” page.⁴⁴ There you will find that the NAI spends an inordinate amount of time writing formal letters to state and federal legislatures opposing privacy-focused legislation. As an organization focused on providing consumers with choice – a key tenet of online privacy⁴⁵ – one might expect the organization to support such legislation. In sum, the self-regulatory approach and its “malicious compliance”⁴⁶ is at best inefficient and at worst a completely self-protecting sham powered by corporate interests, operating as a blockade to any sort of effective enforcement.

2. Privacy Policies

⁴² https://thenai.org/wp-content/uploads/2021/07/nai_code2020.pdf at 7. This Code of Conduct also provides a definition for “Personally Identified Information,” which is defined as “any data linked, or intended to be linked, to an identified individual” Noticeably, this definition is much narrower than the definitions found in the CCPA or GDPR. GDPR’s definition includes those data points that *indirectly* identify an individual and notes that it should be interpreted as broadly as possible. Likewise, CCPA defines PII as information that “relates to, describes, is capable of being associated with” an individual, another significantly broader definition.

⁴³ Google searches have proven fruitless. Nothing on FTC website, either.

⁴⁴ <https://thenai.org/policy-news/policy-priorities/>.

⁴⁵ <https://www.ftc.gov/sites/default/files/documents/reports/privacy-online-fair-information-practices-electronic-marketplace-federal-trade-commission-report/privacy2000.pdf> at 5.

⁴⁶ <https://doctorow.medium.com/uk-ico-surveillance-advertising-is-dead-7d7e45ff5a9e>.

Privacy policies are the legal agreements that explain data collection practices to users who visit websites or download apps.⁴⁷ These policies are considered foundational under Europe’s General Data Protection Regulation and the California Consumer Privacy Act.⁴⁸ In theory, they help companies adhere to Fair Information Processing Principles (“FIPPs”)⁴⁹ such as notice and transparency. Ironically, though these very privacy policies, designed specifically to protect consumers, have proven instead to operate as backdoors to pervasive information sharing in OpenRTB auctions.

These privacy policies have several weaknesses that undermine their effectiveness.⁵⁰ First is the fact that consumers simply do not read these policies.⁵¹ Second, these policies are often phrased in ways that inadequately describe the company’s actual data storage and collection policies.⁵² Third, the “fatigue” that users experience as they are incessantly presented with these extensive documents increases the likelihood that none will be read in great detail.⁵³ Fourth, even when a user declines certain data collection practices in a privacy policy, that website or app may nonetheless use other probabilistic methods to draw inferences on the user’s personal information, or allow the myriads of other ad tech companies with code on a website to do the same.⁵⁴ Fifth, the various privacy policies of hardware, application, and software providers may have conflicting

⁴⁷ *Privacy Policies are Legally Required*, PRIVACYPOLICIES.ORG, <https://www.privacypolicies.com/blog/privacy-policies-legally-required/> (last visited Sep. 25, 2020).

⁴⁸ *Writing a GDPR-compliant privacy notice (template included)*, GDPR.EU, <https://gdpr.eu/privacy-notice> (last visited Sep. 25, 2020); *California Consumer Privacy Act (CCPA)*, State of California Department of Justice, <https://oag.ca.gov/privacy/ccpa> (last visited Sep. 25, 2020).

⁴⁹ FIPPs are discussed in Section II.C.3, *infra*.

⁵⁰ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 442 (Feb. 2018).

⁵¹ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 442 (Feb. 2018).

⁵² Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 442 (Feb. 2018).

⁵³ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 442-43 (Feb. 2018).

⁵⁴ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 444 (Feb. 2018).

terms that subject users to inconsistent obligations through a single app download or website visit.⁵⁵ Finally, and perhaps most significant for privacy concerns, these policies permit the company to share the consumer’s data with an unknown number of undisclosed “third parties” which raises serious concerns to any interested person as to who those third parties are.⁵⁶ And once your information is shared with a single unnamed “third party,” it becomes impossible to trace additional exchanges and server-to-server connections to determine who actually uses or has possession of your personal information.

These privacy policies increasingly “have become the place where website operators may limit their liability for [mis]treatment of personal information”⁵⁷ While the information in a privacy policy might be helpful for experienced corporate defense lawyers or those interested in data privacy, it is disappointing and frustrating that legislators choose to ignore the clear “evidence that few ever read the policies, and even if they did, [they] might not understand the data practices being disclosed.”⁵⁸

In short, privacy policies and the notion of informed consent are “meaningless in the area of privacy law when companies exploit consumers' irrational behaviors and inabilities to accurately and completely assess the tradeoffs of privacy disclosures.”⁵⁹ New regulation is needed that takes the burden off of the individual to read a privacy policy. Instead, the burden to be compliant and respectful of privacy should be placed on those who have the knowledge, expertise, ability, and resources to do so – the ad tech companies themselves.

⁵⁵ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 444 (Feb. 2018).

⁵⁶ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 444 (Feb. 2018).

⁵⁷ Allyson W. Haynes, *Web Site Visitors and Online Privacy*, 20-JUL S.C. LAW. 26, 27 (July 2008).

⁵⁸ Allyson W. Haynes, *Web Site Visitors and Online Privacy*, 20-JUL S.C. LAW. 26, 28 (July 2008).

⁵⁹ Christie Dougherty, *Every Breath You Take, Every Move You Make, Facebook's Watching You: A Behavioral Economic Analysis of the US California Consumer Privacy Act and EU ePrivacy Regulation*, 12 N.E. U. L.R. 629, 658 (2020).

3. Fair Information Practice Principles

FIPPs are a set of broad, technology-agnostic guidelines that are intended to help businesses avoid invading privacy, protect data, and create transparency for consumers.⁶⁰ They help businesses understand how to handle data properly. The FTC’s version of these principles, published more than twenty years ago, focus on (1) notice, (2) choice, (3) access, and (4) security.⁶¹ More recently, GDPR’s “*Principles relating to processing of personal data*” go significantly further and include (1) lawfulness, fairness, and transparency, (2) purpose limitation, (3) data minimization, (4) accuracy, (5) storage limitations, (6) integrity and confidentiality, and (7) accountability.⁶² The CCPA in California adheres to a similar approach.⁶³

While laudable in theory, these principles in the US face a similar challenge we see in self-regulation – a lack of incentive and ability to enforce. Given the intentional lack of clear meaning, these principles are not only difficult to define, but they are also extremely challenging to use when assessing compliance. After all, how does one determine if a company is “transparent”?

The principles are “effective” only to the extent that a clear violation of one or more FIPP has occurred. Moreover, similar to the issues noted above with respect to privacy policies, these principles are only helpful to the extent that an average consumer can understand them and report a violation. Unfortunately, most consumers have no idea the extent to which their personal information is shared or even collected at all. For example, if a consumer were to run a program known as Ghostery,⁶⁴ Google’s Tag Explorer,⁶⁵ or the more advanced Fiddler,⁶⁶ that consumer

⁶⁰ https://en.wikipedia.org/wiki/FTC_fair_information_practice.

⁶¹ <https://www.ftc.gov/sites/default/files/documents/reports/privacy-online-fair-information-practices-electronic-marketplace-federal-trade-commission-report/privacy2000.pdf>.

⁶² <https://gdpr-info.eu/art-5-gdpr/>.

⁶³ <https://www.privacypolicies.com/blog/california-consumer-privacy-act/>.

⁶⁴ <https://www.ghostery.com/>.

⁶⁵ <https://chrome.google.com/webstore/detail/tag-explorer/obhceflecohdhjjomleeakkogaiclhoo?hl=en>.

⁶⁶ <https://www.telerik.com/fiddler>.

would be astonished at the number of advertising technology companies who have code placed onto the average news site. Even if one runs such programs to see what happens on the front end, it is impossible for the consumer to know what later happens with this data on the backend after all the URLs are expanded and 301 redirects are complete. For reasons explained in detail below, the programmatic ecosystem renders pointless FIPPs such as consent, notice, transparency, collection limitation, data minimization, accuracy, and accountability. By running an instantaneous ad auction in the background of a page load, sharing user data with dozens or hundreds of unknown companies (who then store this data indefinitely), FIPPs have become obsolete, and the FTC needs to take a new approach.

D. A More Viable Approach and Analogous Precedent

Instead of remedying already-broken promises of written privacy policies, publishing non-mandatory guidance on vague, standardless FIPPs, or forcing the decoupling of merged business units at astronomical costs (again, after the harm has occurred), the FTC should take an engineer’s approach to software-specific issues. A more viable approach would be to create a comprehensive rule to *standardize the collection, sale, and exchange of user information in programmatic advertising auctions* by mandating the uniform adoption of an application programming interface (“API”) protocol that much of the industry, including the Interactive Advertising Bureau (“IAB”), has already adopted as a guide to integrations.⁶⁷

In the absence of FTC guidance or rulemaking proceedings, the digital advertising industry has developed unscrupulous and, in some instances, knowingly fraudulent behavior at all points in the supply chain that shall be explained in detail below. These actions and conscious decisions by market participants are in direct violation of the FTC Act and, as has recently been well-covered

⁶⁷ <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>

in major news outlets, are correctly under scrutiny for anticompetitive effects.⁶⁸ The FTC staff is well qualified⁶⁹ and best positioned to conduct potential oral hearings and to receive and address written comments throughout the rulemaking process, and, as the FTC has also declared, that the time is ripe for “[t]imely intervention”⁷⁰ in this market.

In fact, the law *must* attempt to keep pace with technology or forever be lost in a game of catch-up as technological advances accelerate. An analogous situation can be found in the establishment of the EPA during the Nixon administration and the subsequent publication of the first National Ambient Air Quality Standards (“NAAQS”) in 1971.⁷¹ These early efforts to establish NAAQS faced challenges due to “poor scientific quality” of certain scientific documents.⁷² Yet the administration and the EPA itself pushed through uncertainty and novel legal and scientific issues to create one of the most effective regulatory agencies in the country.

Although opponents to the proposed rule may claim this approach is without authority, the FTC in the past has prevailed in the past against similar challenges. For example, in *National Petroleum Refiners Association v. FTC*, the FTC issued a binding rule where a “failure to post octane rating numbers on gasoline pumps at service stations” violated the FTC’s prohibition on unfair methods of competition and unfair or deceptive practices.⁷³ The entire purpose of the rule was to enable consumers to have clarity and therefore more informed choices when deciding which

⁶⁸ <https://www.wsj.com/articles/justice-department-to-file-long-awaited-antitrust-suit-against-google-11603195203>.

⁶⁹ Allison Schiff, *FTC Seeks Ad Tech Pros To Bone Up On The ‘Opaque’ Business Of Digital Advertising*, AdExchanger (May 8, 2020), <https://www.adexchanger.com/online-advertising/ftc-seeks-ad-tech-pros-to-bone-up-on-the-opaque-business-of-digital-advertising/>.

⁷⁰

https://www.ftc.gov/system/files/documents/public_statements/1596664/agency_priorities_memo_from_chair_lina_m_khan_9-22-21.pdf.

⁷¹ <https://www.epa.gov/pm-pollution/timeline-particulate-matter-pm-national-ambient-air-quality-standards-naaqs>.

⁷² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3353112/>.

⁷³ *Nat’l Petroleum Refiners Ass’n v. FTC*, 482 F.2d 672, 674 (D.C. Cir. 1973).

type of gas to purchase.⁷⁴ Since the FTC Act itself did not have *any* sort of mention of “octane levels,” the rule challengers claimed the FTC acted outside the scope of its rulemaking authority and thus the rule was invalid.⁷⁵ However, the D.C. Circuit took the opposite approach and noted that the construction of “rules and regulations” as used in the FTC Act were to be viewed “liberally.”⁷⁶ Accordingly, the court held that the substantive rule “unquestionably implements the statutory plan” of the FTC act and the rule was upheld.⁷⁷

This Proposal seeks to accomplish a similarly challenging goal at the forefront of computer science, behavioral psychology, and the monetization of the internet as a whole. Unlike the EPA, though, where protecting the air and water are vital to our very survival, the rule below seeks to eliminate less tangible harms. Moreover, unlike poor air quality, which can over time literally kill you, the technology at issue here is actually of great value to politicians because it enables them to hyper-target individuals and fringe voters with political ads. Thus, it is all the more crucial for the FTC to act on this, rather than allow this idea to die in Congress, whose constituent members will not have a strong desire to push this rule through to fruition.

Just as the octane levels labeling requirements were intended to provide transparency and improve consumer choice, the rule here seeks to provide transparency and uniformity to an extremely opaque industry. The rule shall act as a guide to counsel and software engineers alike and prescribes the specific labels (and corresponding values) that advertisers may target, and that websites and apps may offer, during programmatic advertising auctions – outside of the context of search and social media.

⁷⁴ https://www.ftc.gov/system/files/documents/federal_register_notices/2016/01/160114fuelrating_rulefrn.pdf. (“The amendments further the Rule’s goal of helping purchasers identify the correct fuel for their vehicles.”)

⁷⁵ *Nat’l Petroleum Refiners Ass’n v. FTC*, 482 F.2d 672, 674 (D.C. Cir. 1973).

⁷⁶ *Nat’l Petroleum Refiners Ass’n v. FTC*, 482 F.2d 672, 678 (D.C. Cir. 1973).

⁷⁷ *Nat’l Petroleum Refiners Ass’n v. FTC*, 482 F.2d 672, 678 (D.C. Cir. 1973).

The grounds for treating search and social media differently are due to the inherently different expectation of privacy. When one types in a search on Google or creates an account on a social media platform using an email address, it is reasonable to assume that the content provider will use that email in some capacity for our benefit, especially when one follows a custom, highly specific list of accounts. In other words, when you offer your email to a content provider, you should be less surprised that the content provider will track your actions within the site or app. However, for the “rest of the internet” we view, where we do not have a login-based custom feed, and where ads on websites and apps seem to obliterate all of the content you actually want to view, the expectation for most users is that such websites and apps will be unable to retain or share your personal information.⁷⁸ Yet, the current programmatic ecosystem does just that, at an almost incomprehensible scale. The following section discusses exactly *how* that is done, and the issues it creates.

III. Factual Background: Programmatic Advertising

A. Introduction

At some point over the past few decades, intentionally or not, we as a society have decided to accept the process of viewing ads in exchange for consuming “free” content on the internet.⁷⁹ Unfortunately, the dynamics of this value exchange have shifted dramatically at the expense of consumers and independent journalists in favor of technology platforms and the advertisers they

⁷⁸ It is important to differentiate the privacy expectations in the “rest of the internet” at focus herein from those related to use of an app or website- for example, the FTC’s recent lawsuit against *Kochava* implicates privacy expectations related to use of apps and/or websites as opposed to in the “rest of the internet.”

⁷⁹ Tom Goodwin, *Why making content on the internet free was our biggest mistake... and how to fix it*, WHAT’S NEW IN PUBLISHING (Aug. 9, 2019), <https://whatsnewinpublishing.com/why-making-content-on-the-internet-free-was-our-biggest-mistake-and-how-to-fix-it/>.

serve.⁸⁰ Instead of seeing ads in exchange for free content, we now unwittingly provide countless unknown advertising technology companies with vast amounts of our personal data in exchange for a few brief moments of attention on a sensationalized article, overwhelmed by ads and slow page loads.⁸¹ Despite increasing scrutiny,⁸² the ad tech industry is showing no signs of stopping or even of slowing down on its march towards improved measurement, tracking, and user-level targeting through programmatically-bought advertisements.⁸³

For every search, click, scroll, and mouse movement, we initiate an absurdly complex process in which dozens of programmatic ad tech firms are harvesting, sharing, and eventually auctioning our attention to advertisers around the world.⁸⁴ The aggregate of this incessant flow of data is known as the programmatic *bidstream*.⁸⁵ In its most elemental form, the bidstream is an endless and invisible wave of electric signals.⁸⁶ These signals travel across wires, cables, and empty space, transported in a nearly incomprehensible series of zeros and ones.⁸⁷ Our data and the

⁸⁰ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php.

⁸¹ Tom Goodwin, *Why making content on the internet free was our biggest mistake... and how to fix it*, WHAT'S NEW IN PUBLISHING (Aug. 9, 2019), <https://whatsnewinpublishing.com/why-making-content-on-the-internet-free-was-our-biggest-mistake-and-how-to-fix-it/>; see also Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php; James Barnes, *Online Ads Are Slowing Web Page Loading Speed*, STATUSCAKE (June 20, 2017), <https://www.statuscake.com/online-ads-are-slowing-web-page-loading-speed/>.

⁸² Bill Baer, *The tech antitrust hearings are over: What's next for enforcement?*, THE BROOKINGS INSTITUTION (Aug. 11, 2020), <https://www.brookings.edu/blog/techtank/2020/08/11/the-tech-antitrust-hearings-are-over-whats-next-for-enforcement/>.

⁸³ Nicole Perrin, *US Digital Display Advertising 2020*, EMARKETER (Aug. 12, 2020), <https://www.emarketer.com/content/us-digital-display-advertising-2020>.

⁸⁴ See, e.g., Google's Privacy Policy, <https://policies.google.com/privacy?hl=en-US#infocollect> (last visited Nov. 3, 2020); Ola Rask, *What is Programmatic Advertising? The Ultimate 2020 Guide*, MATCH2ONE, <https://www.match2one.com/blog/what-is-programmatic-advertising/> (last updated June 23, 2020).

⁸⁵ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

⁸⁶ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

⁸⁷ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

bidstream flow across the world, crossing state and national boundaries in an instant.⁸⁸ Indeed, our very own fingertips are the digits that power this endless electrical current of combinations.⁸⁹ Much of the data cannot be deciphered before rushing past servers, forever lost to time.⁹⁰ However, for those capable few software platforms, the bidstream can be manually meandered to ingest and broadcast personal data and to build user profiles through cross-site identity management technology.⁹¹ For those who do it well, like Google, this electrical irrigation is extraordinarily profitable.⁹²

Unfortunately, while the intentions of the technologists who created these platforms were likely benevolent, the ad tech industry has transformed into an oligopoly, proliferated the spread of “fake news” and ad fraud, threatened news publishers’ business models, harmed user experience on the average website, defrauded advertisers out of billions of dollars, and fundamentally undermined the feeling of safety, trust, and *privacy* that we should have while using the internet.⁹³ The FTC must address these issues by streamlining and standardizing this bidstream, beginning with those platforms outside of search and social media, in the programmatic digital advertising market. However, to fully understand this rule petition, one must understand how these ads are actually bought and sold in the Programmatic ecosystem.

⁸⁸ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

⁸⁹ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

⁹⁰ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

⁹¹ Erik Matlick, *When Wading into the Bidstream, Beware the Currents*, MARTECH ADVISOR (Oct. 3, 2020), <https://www.martechadvisor.com/articles/ads/when-wading-into-the-bidstream-beware-the-currents/>.

⁹² Erik Matlick, *When Wading into the Bidstream, Beware the Currents*, MARTECH ADVISOR (Oct. 3, 2020), <https://www.martechadvisor.com/articles/ads/when-wading-into-the-bidstream-beware-the-currents/>.

⁹³ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php; see also Bruce Rogers, *Will It Take An AdTech Crash To End Digital Ad Fraud?*, FORBES (Jan. 18, 2019), <https://www.forbes.com/sites/brucerogers/2019/01/18/will-it-take-an-adtech-crash-to-end-digital-ad-fraud/#2399ebae1368>; Gilad Edelman, *Why Don't We Just Ban Targeted Advertising?*, WIRED MAG. (Mar. 22, 2020), <https://www.wired.com/story/why-dont-we-just-ban-targeted-advertising/>.

B. How an Ad is Bought and Sold Programmatically

1. Media Planning Process

Programmatic media, like all media, begins with an idea for a marketing campaign. That idea originates most often from either a third-party media agency or the brand itself. Once the brand, likely the CMO, selects an idea or two, the media planning process begins. At the beginning of the year, a brand will set aside an annual budget to be allocated across TV, search, social media, YouTube, and other channels. Programmatic advertising is an “other channel” and is a part of this allocation process, receiving a growing portion of media budgets each year.⁹⁴ After a budget is allocated, the programmatic planning team (within the brand’s marketing team or at an agency) selects the apps, sites, times of day, browsers, device types, operating systems, dates, audiences, and Key Performance Indicators (“KPIs”) for a given media campaign.⁹⁵

Once the targeting criteria and KPIs are selected, the final step is to choose a software platform (“Demand Side Platform,” or “DSP”) to execute the buying. Oftentimes the agency/brand will use a “self-service” platform, with agency/brand employees actually conducting the buying using the DSP’s licensed software. In other instances, the DSP will conduct “managed service” offerings, where DSP employees actually conduct the buying themselves on behalf of the brand or agency. After all the targeting parameters are set up in the DSP’s platform, all one has to do is click “start” and the DSP will begin searching for and *bidding* on the yet-to-be-filled ad slots that match the targeting parameters.

2. Key Performance Indicators

⁹⁴ Nicole Perrin, *US Digital Display Advertising 2020*, EMARKETER (Aug. 12, 2020), <https://www.emarketer.com/content/us-digital-display-advertising-2020>.

⁹⁵ <https://smarter-ecommerce.com/blog/en/ecommerce/mastering-programmatic-advertising/>.

One of the most valuable aspects of programmatic advertising is the ability to optimize the campaign as it spends money, in real time, to reach a given KPI. This can be done both manually by the agency or DSP employee, or through the use of machine-learning algorithms offered by the DSP. Often, these KPIs are focused on generating clicks (*e.g.*, click through rates; cost per click) or driving persons to complete certain actions, also known as conversions, online (*e.g.*, action rates; cost per action). However, given that only .11% of users click on programmatic ads,⁹⁶ the ad tech industry has instead creatively developed the concept of “view through attribution” to appease brands, which is discussed in greater detail below. In essence, view-through attribution was created to try and follow a user’s “journey” across the internet towards an action/conversion (without that user ever having ever clicked on an ad), and “optimize” that journey using measurement and attribution reports and adjusting or “optimizing” the DSP platform settings to achieve “better” results.⁹⁷ Notably, Google and many other platforms’ default attribution methodology is the “Last Touch” model, which means that the last advertisement shown to a user before completing a certain action gets the credit for the action.⁹⁸ In other words, the user’s action is *attributed* to the last ad shown to that user prior to taking the action. This attribution process is critical to programmatic advertising because it (ostensibly) allows brands to tie together how the ads on various sites are influencing users and driving them to complete purchases.

3. Supply Chain Nodes

⁹⁶ <https://www.gourmetads.com/articles/what-is-a-good-click-through-rate/>

⁹⁷ *Customer Journey*, RYTE WIKI, https://en.ryte.com/wiki/Customer_Journey (last visited Nov. 8, 2020).

⁹⁸ Diana Daia, *Last-touch Attribution: the Good, the Bad and the Ugly*, ACCUTICS, <https://accutics.com/blog/last-touch-attribution-the-good-the-bad-and-the-ugly/> (last visited Nov. 8, 2020); Saumil Pandey, *Walled Gardens and Marketing Attribution Challenges*, QUANTICMIND, Nov. 27, 2019, <https://quanticmind.com/blog/walled-gardens-marketing-attribution-challenges/>.

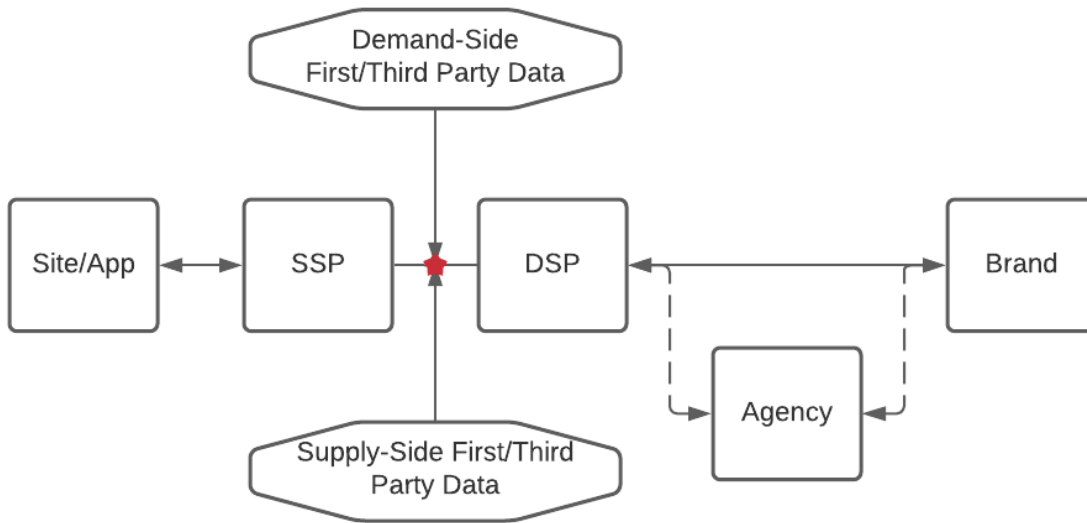
The OpenRTB Model is the foundational application programming specification “for companies interested in an open protocol for the automated trading of digital media.”⁹⁹ The OpenRTB Model has widespread adoption across the programmatic advertising industry.¹⁰⁰ While there are variations across devices, publishers, and operating systems, the basic technical process is similar for most programmatic advertisement auctions.¹⁰¹ The diagram below provides a simplified view of the supply chain that powers each and every programmatic ad sale, and although this process is altered and customized for each website and app, the basic process is the same for all market participants in the programmatic advertising ecosystem.¹⁰² The starred connection between DSP and SSP in the diagram indicates where ad auctions actually occur and is where the OpenRTB Model actually takes effect. This is the primary area the rule seeks to regulate.

⁹⁹ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at ii, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹⁰⁰ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at ii, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹⁰¹ Sonja Kroll, *It's Not Mobile vs Desktop – It's In-App vs Web: Q&A with Fyber*, EXCHANGEWIRE (Apr. 28, 2016), <https://www.exchangewire.com/blog/2016/04/28/its-not-mobile-vs-desktop-its-in-app-vs-web-qa-with-fyber/> (“The process, tools, and buying behaviours for programmatic on desktop and the mobile web are very similar – if not the same.”).

¹⁰² This is a custom diagram made based on personal work experience in the industry and does not draw from a particular source.



4. Bid Requests

Beginning on the left-hand side of the diagram, as soon as a website begins to load content on the page, the site simultaneously leverages its Supply Side Platform (“SSP”) to find potential bidders for the still-empty ad slots on that page.¹⁰³ SSPs, sometimes referred to as “ad exchanges” are platforms that “help publishers monetize their websites or apps by managing, selling and optimizing” their available ad space.¹⁰⁴ A publisher, on average, integrates with and places code on their website from approximately six different SSPs in order to take advantage of each SSP’s “unique” set of capabilities and to maximize the number of potential buyers for their ads.¹⁰⁵ To

¹⁰³ Maciej Zawadziński & Michal Wlosik, *What Is a Supply-Side Platform (SSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/what-is-supply-side-platform/> (last visited Sep. 25, 2020).

¹⁰⁴ Maciej Zawadziński & Michal Wlosik, *What Is a Supply-Side Platform (SSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/what-is-supply-side-platform/> (last visited Sep. 25, 2020).

¹⁰⁵ Ross Benes, *Publishers Are Using Fewer Sell-Side Vendors*, EMARKETER (July 17, 2018), <https://www.emarketer.com/content/publishers-purged-one-fourth-of-their-ssps-over-two-years>; see also Vishveshwar Jatain, *The Best SSPs (Supply-Side Platforms) for Web Publishers*, ADPUSHUP (Feb. 6, 2019), <https://www.adpushup.com/blog/ssp-supply-side-platforms/>.

source buyers for individual ad slots, the SSP generates a “bid request,” which is an electronic signal that an empty ad slot on the webpage is open for auction, hence the term *bidstream*.¹⁰⁶

To provide additional information in these bid requests, the SSP bundles up in the bid request a series of data points – known as “objects” in the OpenRTB Model – to provide buyers with additional information about the ad slot.¹⁰⁷ These objects are collected through the browser or an app’s software development kit (“SDK”) and contain the characteristics of the ad being requested, including sub-objects known as “attributes.”¹⁰⁸ For example, the object or attribute will describe the ad dimensions (square vs. rectangle), device type (desktop vs. mobile), website name, location, IP address, and, most importantly, the “user” object.¹⁰⁹ These objects are almost entirely optional except for a select few, and although the OpenRTB Model serves as a guide, extensive customization for each programmatic advertising software integration is the norm.

5. Focus: User Object

The user object is the most important piece of information exchanged in programmatic advertising because it (allegedly) tells you who is on the page, what other websites that user has visited, when the user last saw one of your ads, etc. The OpenRTB Model defines the user object as “information known or derived about the human user of the device (*i.e.*, the audience for advertising).”¹¹⁰ Most often, user information is sourced from cookies on web browsers, or device

¹⁰⁶ Maciej Zawadziński & Michal Wlosik, *What Is a Supply-Side Platform (SSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/what-is-supply-side-platform/> (last visited Sep. 25, 2020).

¹⁰⁷ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 8, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>; *OpenRTB (ORTB) Explained*, AD TECH EXPLAINED (Aug. 7, 2019), <https://adtechexplained.com/openrtb-ortb-explained/>.

¹⁰⁸ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 1, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>; *OpenRTB (ORTB) Explained*, AD TECH EXPLAINED (Aug. 7, 2019), <https://adtechexplained.com/openrtb-ortb-explained/>.

¹⁰⁹ *OpenRTB (ORTB) Explained*, AD TECH EXPLAINED (Aug. 7, 2019), <https://adtechexplained.com/openrtb-ortb-explained/>.

¹¹⁰ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 25, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

IDs (also referred to as IDFAs or similar mobile identifiers) on mobile phones and tablets.¹¹¹ Within web browsers, cookies are classified as either first or third party.¹¹² First party cookies are generated and maintained by the website itself and are most often used to improve the user experience, such as tracking items in a shopping cart.¹¹³ On the other hand, third party cookies are unique to the ad tech company that placed it (whether it be the SSP, the DSP, or a cross-platform ad measurement tracker) and are used primarily to track your behavior across sites.¹¹⁴ First and third party browser cookies are distinguishable from Device IDs because the latter is able to track activity across (possibly all of) your applications, and can track your geolocation using lat/long data.¹¹⁵ As one marketing publication describes them:

“Device IDs are also helpful for cross-device targeting. When users set up their phones, they enter an email address, and that address stays inextricably linked to their mobile. Of course, that email is also linked to their online habits – sites where they have accounts like social networks, music sites, news sites, and more. That means marketers can glean more relevant behavioral data, which in turn means they can surface relevant messages at ideal moments across screens. It also allows marketers to attach that information to an attribution model, even when transactions occur offline. Marketers can actually determine when a person who has bought an item, in-store or online, was influenced by online advertising. That’s huge.”¹¹⁶

Google’s user object is most often tied to your Gmail account. But Google’s Chrome is another key link in their visibility profile for user behaviors, especially for those DFP-powered sites where you do not login. Another example audience-monetization company known as

¹¹¹ Diane Harding, *For Targeted Advertising, Mobile Device ID Crumbles the Cookie*, EXCHANGEWIRE (Nov. 15, 2017), <https://www.exchangewire.com/blog/2017/11/15/mobile-device-id-crumbles-cookie/>.

¹¹² *Cookie Syncing Explained*, AD TECH EXPLAINED (Sep. 30, 2019), <https://adtechexplained.com/cookie-syncing-explained/>.

¹¹³ *Cookie Syncing Explained*, AD TECH EXPLAINED (Sep. 30, 2019), <https://adtechexplained.com/cookie-syncing-explained/>.

¹¹⁴ *Cookie Syncing Explained*, AD TECH EXPLAINED (Sep. 30, 2019), <https://adtechexplained.com/cookie-syncing-explained/>.

¹¹⁵ Diane Harding, *For Targeted Advertising, Mobile Device ID Crumbles the Cookie*, EXCHANGEWIRE (Nov. 15, 2017), <https://www.exchangewire.com/blog/2017/11/15/mobile-device-id-crumbles-cookie/>.

¹¹⁶ Diane Harding, *For Targeted Advertising, Mobile Device ID Crumbles the Cookie*, EXCHANGEWIRE (Nov. 15, 2017), <https://www.exchangewire.com/blog/2017/11/15/mobile-device-id-crumbles-cookie/>.

LiveRamp specializes in allowing brands and publishers to “unlock” the value of their respective audience data through a “privacy-first business model.”¹¹⁷ Ignoring the irony of a privacy-focused company that makes money by invading your privacy and sharing your personal information (along with inaccurate probabilistically-modelled information derived from suspect signals like IP addresses) with other ad tech companies, LiveRamp is just one example of how the audience-generating business can be a lucrative and almost completely unassailable endeavor built on trusting a company’s claimed dataset and algorithms.

Most importantly, these Device IDs and cookies are the backbone of the digital advertising economy¹¹⁸ because they enable attribution – “the process of identifying which touchpoints a consumer interacted with or was *exposed* to during a period of time before they completed a goal set by an advertiser or marketer.”¹¹⁹ The topic of attribution will be discussed at length below in Section III.C.

6. Sending Bid Requests to Ad Buyers

SSPs integrate directly with and send bid requests to multiple DSPs to garner as many potential buyers as possible for each ad, thereby increasing the prices they receive.¹²⁰ As noted above, DSPs are software platforms that allow advertisers or their agencies to buy advertisements on the specific sites, devices, times, and locations of their choosing.¹²¹ Most importantly, DSPs enable advertisers or agencies to upload sets of users – cookies or Device IDs – they wish to

¹¹⁷ <https://liveramp.com/>.

¹¹⁸ *Cookie Syncing Explained*, AD TECH EXPLAINED (Sep. 30, 2019), <https://adtechexplained.com/cookie-syncing-explained/>.

¹¹⁹ *12. Attribution*, CLEARCODE: THE ADTECH BOOK, <https://adtechbook.clearcode.cc/attribution/> (last visited Sep. 25, 2020) (emphasis added). This “exposure” is discussed further in Section III.D.

¹²⁰ Michael Sweeney, *What Is a Demand-Side Platform (DSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/demand-side-platform/> (last visited Sep. 25, 2020).

¹²¹ Michael Sweeney, *What Is a Demand-Side Platform (DSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/demand-side-platform/> (last visited Sep. 25, 2020).

target.¹²² All of this targeting is accomplished using variations of the same OpenRTB Model that the SSPs use to describe the individual.¹²³ Thus, by controlling and manipulating the collection of objects it seeks to purchase (sites, times, locations, users, etc.), the DSP has the potential to spend the advertiser’s dollars more precisely and efficiently.¹²⁴

Within a few milliseconds of receiving a bid request from an SSP, the DSP reviews all of its advertisers’ “live” campaigns, filters the targeting parameters to specific criteria that match what the SSP is offering in its bid request, fetches the price each advertiser is willing to pay, conducts an internal auction across those matched DSP bids, and finally sends the single highest bid to the SSP.¹²⁵ This DSP-side process of bid request ingestion, campaign filtering, and bid matching, is conducted within a few milliseconds – at all hours of every day for nearly every website loaded across the US.

7. Ingestion of Bids and Win/Loss Signals

Again within a few milliseconds of a page starting to load, the SSP ingests bids from multiple DSPs, conducts its own auction, and responds to the bidding DSPs with either a win or loss signal.¹²⁶ If the SSP signals to one DSP that its bid lost the auction to another buyer, the

¹²² Michael Sweeney, *What Is a Demand-Side Platform (DSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/demand-side-platform/> (last visited Sep. 25, 2020).

¹²³ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 2, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹²⁴ Michael Sweeney, *What Is a Demand-Side Platform (DSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/demand-side-platform/> (last visited Sep. 25, 2020).

¹²⁵ Michael Sweeney, *What Is a Demand-Side Platform (DSP) and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/demand-side-platform/> (last visited Sep. 25, 2020); Ken Archer, *Why Marketers Need More Than One DSP – Understanding The Risks*, THUNDER INDUSTRIES, May 18, 2018, <https://www.makethunder.com/marketers-need-one-dsp-understanding-risks/>.

¹²⁶ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 4, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

process is complete; but if that DSP is informed it has won the auction, the DSP then must respond with the actual advertisement (i.e. the “ad tag” code noted in Section I.A).¹²⁷

8. Winning Bids and Ad Delivery

After receiving the signal that it won the auction, the DSP responds with the code of the actual advertisement itself.¹²⁸ Finally, after the ad tag code is sent by the DSP to the SSP and the ad renders on the page, the SSP sends a billing notice back to the DSP containing the price the buyer ended up paying, along with a plethora of other data points, such as whether the ad was in view, whether it was clicked, what type of website content was on the page, to name a few.¹²⁹ Much of this auction data is collected by DSPs even if the advertiser fails to win the auction, or even if the DSP does not bid at all. This creates a vast wealth of bidstream data that a DSP and its advertiser clients can use to understand the bidstream supply and the corresponding trough of user information.¹³⁰

C. Demand-Side Incentives and Related Issues

1. Performance Marketing and Attribution Do Not Work

The primary goal of programmatic advertising is to measure and analyze what ads are working “best,” most often through a process known as attribution modelling.¹³¹ From the brand’s

¹²⁷ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 4, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹²⁸ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 4, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹²⁹ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 4, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹³⁰ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

¹³¹ Marketing Attribution: A Guide to Models, Tools, and Strategy, MARKETING EVOLUTION, <https://www.marketingevolution.com/marketing-essentials/marketing-attribution> (last visited Nov. 8, 2020); Saumil Pandey, *Walled Gardens and Marketing Attribution Challenges*, QUANTICMIND, Nov. 27, 2019, <https://quanticmind.com/blog/walled-gardens-marketing-attribution-challenges/>.

perspective, it makes perfect sense to try to follow this “user journey” towards a purchase, and “optimize” that journey through measurement and attribution reports.¹³² Google and many other demand-side platforms’ default attribution methodology is the “Last Touch” model, which means that the last advertisement served to a user before completing a certain action gets credit for the action.¹³³ Unfortunately, with fragmented user journeys and walled gardens that keep attribution data in-house, it is literally *impossible* for this model (or, for that matter, *any* attribution model) to be an accurate representation of what ads or websites work “best” because no single platform, even Google, has a complete view of the user journey.¹³⁴ As a result, the marketer is left with countless ad tech companies competing to serve the final ad before the consumer completes a purchase, leading to an immense amount of wasted dollars spent on users who were *already* going to make that purchase, or “convert” on the action. Ironically, the most viable technology for any advertiser would thus be a single company with a complete monopoly over a user’s online and offline journey, with total visibility across all websites and apps, which rubs against any notion of a competitive market.

Further, since there are no fiduciary obligations in online advertising as there are in securities markets, agency employees with DSP platform logins have nearly free reign to do as

¹³² *Customer Journey*, RYTE WIKI, https://en.ryte.com/wiki/Customer_Journey (last visited Nov. 8, 2020).

¹³³ Diana Daia, *Last-touch Attribution: the Good, the Bad and the Ugly*, ACCUTICS, <https://accutics.com/blog/last-touch-attribution-the-good-the-bad-and-the-ugly/> (last visited Nov. 8, 2020); Saumil Pandey, *Walled Gardens and Marketing Attribution Challenges*, QUANTICMIND, Nov. 27, 2019, <https://quanticmind.com/blog/walled-gardens-marketing-attribution-challenges/>.

¹³⁴ Diana Daia, *Last-touch Attribution: the Good, the Bad and the Ugly*, ACCUTICS, <https://accutics.com/blog/last-touch-attribution-the-good-the-bad-and-the-ugly/> (last visited Nov. 8, 2020); Saumil Pandey, *Walled Gardens and Marketing Attribution Challenges*, QUANTICMIND, Nov. 27, 2019, <https://quanticmind.com/blog/walled-gardens-marketing-attribution-challenges/>.

they please with a campaign, without the brand’s knowledge and often at the brand’s expense, to optimize the “performance” of their programmatic campaigns.¹³⁵

One “optimization” tactic known as “cookie bombing” is common when multiple platforms compete as to who gets “credit” for the key actions the ad buyer seeks to maximize, and agency employees are frequently evaluated based on such performance metrics.¹³⁶ The cookie bombing tactic involves paying as little as possible for each individual ad to maximize the number of ads you can buy with a given budget. This increases the probability that your ad will be served last prior to a user completing a purchase online¹³⁷ and thus increases the probability that your ad will get attribution credit. Preferably, the ad will appear at the bottom of the page (and often out of view) compared to a competitor’s ad, because that lower ad’s timestamp will be triggered *later* than the (larger and more expensive) ad at the top of the page, thereby giving the bottom-of-the-page ad the last-touch credit.¹³⁸

The end result of these games is a false impression of “great” performance, less money for publishers, and higher server costs for ad tech firms (because more bids are necessary to spend the same number of dollars).¹³⁹ One agency executive estimated that up to 75% of such performance-

¹³⁵ Jessica Davies, ‘Brands turn a blind eye’: Confessions of a former agency exec on attribution scamming, DIGIDAY, Feb. 8, 2019, <https://digiday.com/media/brands-turn-blind-eye-confessions-former-agency-exec-attribution-scamming/>.

¹³⁶ Jessica Davies, ‘Brands turn a blind eye’: Confessions of a former agency exec on attribution scamming, DIGIDAY, Feb. 8, 2019, <https://digiday.com/media/brands-turn-blind-eye-confessions-former-agency-exec-attribution-scamming/>.

¹³⁷ Jessica Davies, ‘Brands turn a blind eye’: Confessions of a former agency exec on attribution scamming, DIGIDAY, Feb. 8, 2019, <https://digiday.com/media/brands-turn-blind-eye-confessions-former-agency-exec-attribution-scamming/>; Richard Tso, *The Cookie Bomb Time Bomb: Finding Fault With the Last-Click Attribution Model*, ADOTAS, Sep. 26, 2012, <http://www.adotas.com/2012/09/the-cookie-bomb-time-bomb-finding-fault-with-the-last-click-attribution-model/>.

¹³⁸ Richard Tso, *The Cookie Bomb Time Bomb: Finding Fault With the Last-Click Attribution Model*, ADOTAS, Sep. 26, 2012, <http://www.adotas.com/2012/09/the-cookie-bomb-time-bomb-finding-fault-with-the-last-click-attribution-model/>.

¹³⁹ Richard Tso, *The Cookie Bomb Time Bomb: Finding Fault With the Last-Click Attribution Model*, ADOTAS, Sep. 26, 2012, <http://www.adotas.com/2012/09/the-cookie-bomb-time-bomb-finding-fault-with-the-last-click-attribution-model/>.

based campaigns employed attribution-scramming.¹⁴⁰ When machines are the ones making these buying decisions and moving advertiser dollars around the internet towards the best KPI-producing sites and apps,¹⁴¹ the accountability for agencies becomes a nullity and, in essence, “good marketing” mutates to “good numbers” and more fraud.¹⁴²

Consider the average user journey towards a purchase. There is a strong chance that when a user finally decides to purchase an item (not via Amazon), he or she will Google the item or brand and then buy the item. That search ad always gets the last touch credit. This attribution model is a truly brilliant way for Google to cement their position as the “top-performing” ad tech company in the world. Unfortunately, because the rest of the ad tech landscape is also using similar or identical attribution models, the goal is not to create great marketing campaigns, but to show the best numbers by serving the last ad.

Similar issues arise in the context of “retargeting” campaigns. These “retargeting” efforts are campaigns where a DSP will serve Company A ads to a user who just recently visited Company A’s website or application.¹⁴³ Once again, due to the nature of last-touch attribution, retargeting campaigns get an unjustified amount of budget allocation because the users who have just visited your website are, on average, more likely than an average consumer to buy something. Thus, by serving more ads to these users near the point and time of purchase, the cost-per-conversion (or conversion rate) will be lower (or higher) simply due to the user’s proximity to the site, instead of

¹⁴⁰ Jessica Davies, ‘Brands turn a blind eye’: Confessions of a former agency exec on attribution scrambling, DIGIDAY, Feb. 8, 2019, <https://digiday.com/media/brands-turn-blind-eye-confessions-former-agency-exec-attribution-scramming/>.

¹⁴¹ What is a Demand-Side Platform (DSP)?, LIVERAMP, Jan. 9, 2018, <https://liveramp.com/blog/what-is-dsp-demand-side-platform-definition/>.

¹⁴² Julian Baring, *The Seven Deadly Sins of Ad Tech*, MARTeCH SERIES, Mar. 3, 2020, <https://martechseries.com/mts-insights/guest-authors/seven-deadly-sins-ad-tech/>.

¹⁴³ <https://www.criteo.com/blog/how-retargeting-works>.

actually influencing that individual to purchase something.¹⁴⁴ On average, anywhere between 25% to 75% of brand dollars are wasted on these campaigns due to their lack of influence.¹⁴⁵

2. “Just Spend the Money”

The KPI “optimization” described above is not the only factor affecting how and where ads are bought and sold. In terms of DSP and ad agency objectives, hitting performance metrics goals is of equal or even lesser importance when compared to spending the advertiser’s budget in full.¹⁴⁶ The logic is simple: if you don’t spend the dollars this year, you won’t get the same dollars next year. Thus, to avoid underspend, a cardinal sin in the ad tech world, the agency or DSP can simply click a few buttons in the platform to make sure the dollars go out into cyberspace,¹⁴⁷ with the brand completely unaware that its dollars are not being spent in the manner it intended.

It is shockingly easy to stray outside of the brand’s planned programmatic media campaign.¹⁴⁸ Alongside cookie-bombing and other gamification of KPI goals like click-rate maximization, the incentives to “just spend the money” abound for agency employees and other unnamed figures behind the keyboards of these ad tech platforms.¹⁴⁹

The results are alarming and need to be addressed by the FTC due to the unfair and deceptive nature of these acts. Brands continue to be defrauded out of millions of dollars because the agency employee, DSP support employee, or another person with no accountability to the

¹⁴⁴ <https://briefbid.com/media-insights/5-ways-marketers-waste-retargeting-dollars/>.

¹⁴⁵ <https://www.adexchanger.com/data-driven-thinking/stop-wasting-money-on-retargeting/>

¹⁴⁶ *Avoid PPC Spend Disasters with Budget Pacing*, SHAPE INTEGRATED SOFTWARE, <https://shape.io/ppc-budget-pacing> (last visited Nov. 8, 2020) (“These advertisers must carefully optimize their advertising campaigns to hit both key performance indicators (KPIs) and target budget caps as well.”).

¹⁴⁷ *Avoid PPC Spend Disasters with Budget Pacing*, SHAPE INTEGRATED SOFTWARE, <https://shape.io/ppc-budget-pacing> (last visited Nov. 8, 2020).

¹⁴⁸ *Display & Video 360 Help*, GOOGLE SUPPORT, <https://support.google.com/displayvideo/answer/2949947?hl=en> (last visited Nov. 8, 2020).

¹⁴⁹ *Why Do People Click On Smartphone Ads? Because They Have Fat Fingers*, SLATE.COM, Oct. 5, 2012, <https://slate.com/technology/2012/10/mobile-advertising-smartphone-ad-clicks-due-to-small-buttons-fat-fingers.html>.

brand will simply click a few buttons in the DSP and cause a brand to serve ads against thousands of websites, instead of the select few it wanted to. The person with hands on keyboard could also just change the user composition by adding probabilistically-modelled audiences to help the campaign spend more easily (since more bid requests will reach the DSP with a larger audience). Alternatively, the DSP could raise the price of the bids it sends out, simply to ensure all the dollars are spent. The buyer could also expand its time of day targeting to include all hours of the day, instead of the brand's desired 9am to 5pm buying schedule. The tools are endless for agency and DSP employees to ensure that the money gets spent – no matter how inefficiently or ineffectively. This manner of unfair and deceptive ad purchasing needs to be addressed to protect brands, publishers, and consumers alike.

3. Internal Auctions

Unlike financial markets, where the bids and asks for securities are clearly defined and transactions are conducted through highly-regulated exchanges such as the Nasdaq, digital advertising transactions are completely unregulated, which has led to instances of unfair and deceptive trade practices. One such unfair practice was Google's "last look auction."¹⁵⁰ This was a practice where Google's combined technology from its DoubleClick for Publishers product and AdX product would allow it to "see" other non-Google demand-side bids, and then bid slightly (\$0.01) higher in the auction, allowing it to win the auction at the lowest possible price and also collect the revenue from facilitating the auction.¹⁵¹ Thankfully the ad tech industry was savvy enough to develop its own technology to counter these efforts,¹⁵² but only after Google was able

¹⁵⁰ <https://www.adexchanger.com/platforms/google-removes-last-look-auction-advantage/>.

¹⁵¹ <https://www.thedrum.com/news/2017/04/01/google-has-tweaked-its-auction-no-longer-favour-its-own-bids-over-competition>. <https://www.adpushup.com/blog/google-removes-last-look-privilege-in-dfp-for-fairer-ad-auctions/>.

¹⁵² <https://www.thedrum.com/news/2017/04/01/google-has-tweaked-its-auction-no-longer-favour-its-own-bids-over-competition>.

to retain an unfair and undetectable advantage for an unknown period of time. When one company has a dominant market share at all points in the supply chain, it should cause concern for regulators like the FTC, especially when a company like Google has already taken unfair advantage of its position to the detriment of potential competitors and consumers alike.

Another example is a DSP's internal auction. For example, when a DSP ingests a bid request, and the platform realizes it has several advertisers with actively-bidding campaigns who could all bid on that request, it conducts an internal auction to find the highest bidder and sets aside the other bids. This allows the DSP to increase its own revenue since it makes money as a share of advertiser dollars spent through the platform, at the expense of smaller brands with tighter budgets and, thus, lower average bids. Again, this is just another anecdotal example of a deceitful and unfair practice that ad tech companies engage in due to a complete lack of regulation in these markets that the FTC should address.

4. Desire to See the Entire User Journey

As has already been noted, all advertisers want to understand how their ads are influencing users and to leverage that information to optimize their advertising campaigns. To understand their influence, an advertiser needs to be able to view the collective cross-site and cross-environment efficacy of its advertising campaigns through dashboards and reports. In an ideal world, advertisers would have complete visibility into all their potential customers' day-to-day lives and how each individual ad affects those people. In other words, advertisers would love a true monopoly that has full visibility into all sites, ads, and devices with which a user engages. This eliminates the need to merge reports from separate platforms such as Google, Facebook, Amazon, Snapchat, TTD, or TikTok. Ironically, the advertisers' ideal world is the FTC's worst nightmare because this is

precisely the type of anticompetitive and privacy-invasive behavior the FTC is tasked with preventing.

Even more ironic is the fact that advertisers are often chasing what they will never be able to obtain, unless society goes significantly further down the path of abandoning any semblance of individual privacy. It is impossible, at least without activating the front camera and tracking eye movement without permission, to know if a user has viewed your ad without having clicked on it. Even if a brand captured a user's mouse hovering over an ad or somehow captured a similar form of "engagement" with the ad, it is impossible to do so on mobile phones due to the lack of a mouse and is only a speculative inference of interest at best. And as noted above, the ads that do get attribution credit for a conversion/action are often out of view, never even seen by the user, or just happened to be served last. And yet the ad tech industry continues to hype up identity, even dedicating an entire day to understanding and tracking identity.¹⁵³ In other words, the programmatic advertising industry has an entire day focused on collaborating as to how they can leverage our biases, default effects, cognitive weaknesses while taking advantage of toothless laws like CCPA and GDPR in order to track our every movement without our consent or knowledge.

D. Supply-Side Incentives and Related Issues

The current financial prospects and revenue models for websites, app developers, and SSPs, coupled with consumers' entrenched expectations not to pay for content,¹⁵⁴ have created a

¹⁵³ <https://www.adexchanger.com/go/innovation-labs-2021/overview/>.

¹⁵⁴ Rob Salkowitz, *Survey: U.S. Consumers Love Online News But Won't Pay For It*, FORBES (Feb 18, 2020), <https://www.forbes.com/sites/robsalkowitz/2020/02/18/survey-us-consumers-love-online-news-but-wont-pay-for-it/#ca2c6181083c>.

status quo in the programmatic supply chain that minimizes transparency and maximizes personal data collection and sales in a deceptive manner.¹⁵⁵

1. Data Broker Fraud

Third party data brokers are companies that place code on countless websites and apps with which they otherwise have no affiliation in order to create cookie-based or device-based audiences.¹⁵⁶ If a user visits nike.com, a data broker will place a cookie or similar tracker and classify that user as a sneaker enthusiast. Data brokers make money by selling large bundles of these users (aka user “objects”) to DSPs, which allows the DSP to find those sneaker enthusiasts when they are not on nike.com. In short, data brokers are huge drivers of behavioral advertising across the internet.¹⁵⁷

However, a data broker often only makes money when a DSP can actually *find* and bid on a sneaker enthusiast on a given website. If the data broker’s audience pool is very small, then the DSP will have a difficult time finding an opportunity to bid on that user, which in turn lowers the probability that the data broker will make money. Therefore, the data broker is incentivized to make these user pools as large and durable as possible, thereby increasing the probability that the DSP will bid on these so-called “sneaker enthusiasts” and increasing potential revenue for the broker.

Unfortunately, there are zero rules governing how these pools of user-based audiences are created. As a result, data brokers like Oracle, BlueKai, and Lotame Solutions are left with free

¹⁵⁵ Gilad Edelman, *Why Don't We Just Ban Targeted Advertising?*, WIRED MAG. (Mar. 22, 2020), <https://www.wired.com/story/why-dont-we-just-ban-targeted-advertising/>; Jeff Meglio, *Where are we on programmatic transparency?*, IAB UK (Apr. 9, 2019), <https://www.iabuk.com/opinions/where-are-we-programmatic-transparency>; Michael Sweeney, *Transparency in Ad Tech: The Problems, Fallouts, and Solutions*, CLEARCODE, <https://clearcode.cc/blog/ad-tech-transparency/> (last visited Sep. 25, 2020).

¹⁵⁶ <https://digiday.com/marketing/data-vendors-struggle-gender/>. See also Section III.B.5 above.

¹⁵⁷ <https://clearcode.cc/glossary/data-broker/>.

reign to classify users however they wish, and retain those users in the audience, even if the relevant data inputs go “stale” and are no longer relevant. For example, if a user visits cnn.com, and any of these data brokers have code on that site, the data broker can of course tag the user into a “news visitor” audience, which would be accurate. But if there is a headline on the recent NFL game on the cnn.com homepage, there is nothing stopping the broker from also tagging the user as a “sports enthusiast,” even if the user never read or even saw the NFL article. There is also nothing stopping Oracle from including cnn.com visitors in a “news reader” audience even many of those users have not been to cnn.com in 90+ days.

A DSP uses these audiences to behaviorally target users, and some aggregated cookie-based audiences from Oracle claimed to have more than *500 million* individuals “in market” for automobiles within the United States *alone*. Such instances of user-count-enhancing “probabilistic” methodologies and are pervasive throughout the data broker industry.

In fact, as one scholar notes, the value of behavioral advertising and the user object as a general matter is speculative at best, especially on the publisher side.¹⁵⁸ Compared to contextual advertising, where no user object is needed (although it may be present), behavioral ads drive only 4% higher revenues. While 4% may seem significant at first, in the context of digital advertising, this 4% increase only “corresponds to an average increment of just \$ 0.00008 per advertisement.”¹⁵⁹ When one publisher was also able to remove some of its ad tech intermediaries and switched entirely to contextual-based advertising, its revenues actually “soared.”¹⁶⁰ By enhancing the value of contextual advertising for both publishers and advertisers through this rule, brands will avoid wasted dollars focused on gamified attribution and publishers will no longer

¹⁵⁸ <https://doctorow.medium.com/uk-ico-surveillance-advertising-is-dead-7d7e45ff5a9e>, and see https://weis2019.econinfosec.org/wp-content/uploads/sites/6/2019/05/WEIS_2019_paper_38.pdf.

¹⁵⁹ https://weis2019.econinfosec.org/wp-content/uploads/sites/6/2019/05/WEIS_2019_paper_38.pdf.

¹⁶⁰ <https://doctorow.medium.com/uk-ico-surveillance-advertising-is-dead-7d7e45ff5a9e>.

have to choose whether or not to engage in behavioral advertising and auction off their users' personal information.

2. Low Quality and Fraudulent Supply

Similar to third party data brokers, SSPs only make money when they can provide bid requests to DSPs. Therefore, SSPs are incentivized to integrate with as many websites and apps as possible. At the same time, there is almost no incentive for the SSP to check the quality or content on a given website or app because there are few meaningful ways for the DSP to check, before bidding, the quality of the site for itself. While certain SSPs have higher quality traffic than others, the fact remains that, without rules or regulations to guide SSPs in vetting their supply of sites and apps, the incentive to offer a large supply of low quality and often fraudulent traffic will remain.

So, the more websites and apps an SSP can offer, the more likely that it will be able to offer a request to demand-side bidders, and the SSP will make more money by facilitating the auctions. As a result, SSPs are actually incentivized to have *more* fraud on their platforms. And once again, unlike financial markets with heavy regulation, there is currently no way for a regulator to vet the validity of the traffic an SSP obtains. The only comfort brands have is the ostensible claims by SSPs that they have “sophisticated” technology to eliminate fraud.

More often than not, though, such red flags of fraudulent inventory or clicks go undetected or unreported. In practice on the demand side, such fraud is only addressed after a brand or agency employee takes a close look at site-level reporting, sees obscenely high click rates or impression delivery on completely unrecognizable websites, and reports that to the DSP or brand, which almost never happens.¹⁶¹ Even then, the DSP has still conducted the auction and logged the revenue

¹⁶¹ In many of the connected television programmatic advertising campaigns, there are an unusually high number of clicks on connected television devices. When is the last time a user “clicked” on an ad on a CTV?

on its books, so it will more often than not simply sweep the fraud under the rug and not report it to the SSP or brand.

Adding fuel to this fire is the process where algorithms funnel bids towards sites and apps that generate more clicks, views, engagement, or similar KPI-related actions. Without the ability to preemptively determine which website views, clicks, or even cookies are illegitimate, demand-side algorithms run amuck and shift even *more* dollars to those places that fraudsters know are driving the “best” KPI results for these brands. In fact, one bot farm in 2016 generated more than \$5 million *per day* for the Russian mafia.¹⁶² But when KPI performance metrics on campaign reports look favorable when running on such traffic, the DSP, agency, or other low-level employee will simply look the other way when they see 5% clickthrough rates on connected televisions¹⁶³ through A&E Networks, or 10% clickthrough rates on freemathquizzes.com from a single IP address in Los Angeles. After all, these site-level reports never make it up the chain to the brand’s CMO. Even if they did, if the brand has already purchased 10 billion ads over a year on 10,000 sites and apps (the latter often only having an app ID rather than an app name), no brand employee is likely to take the time to parse through such dense reports and make the effort to flag such unusually strong “performance.”

3. More, Bigger Ads

Instead of focusing on quality content or investigative journalism, many websites today instead try to maximize the size and number of ads on each page while increasing total page views or clicks, often through sensationalized content.¹⁶⁴ Likewise for mobile apps, most developers

¹⁶² <https://www.marketingdive.com/news/russian-bot-farm-siphons-up-to-5m-in-digital-ad-revenue-daily/432812/>.

¹⁶³ Clicks almost never occur on CTV devices.

¹⁶⁴ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php; Gilad Edelman, *Why Don't We Just Ban Targeted Advertising?*, WIRED MAG. (Mar. 22, 2020), <https://www.wired.com/story/why-dont-we-just-ban->

monetize through advertisements and the sale of user data rather than monthly subscriptions.¹⁶⁵ All of this user data is sent automatically to advertisers via the bidstream in an attempt to increase the number of DSPs bidding on the site.¹⁶⁶ In addition, due to DSP and advertiser focus on click-generating inventory, the supply side is incentivized to add to their website those advertisements that trick a user into clicking, rather than focusing on quality creatives or content that keeps the user engaged on the on the page.

Due to the smaller screen, click rates are artificially higher on mobile phones compared to desktop devices, and the “fat finger effect” can have drastic effects on where a brand’s money is spent. The fat finger effect is simply the phenomenon where users are prone to accidentally click mobile banner or video ads by accident as they browse the web.¹⁶⁷ Unfortunately, demand-side algorithms are unable to demarcate when a user has accidentally or purposefully clicked on an ad. Thus, algorithms and human buyers alike will shift more dollars towards accidental clicks, rather than legitimate clicks, wasting brand dollars on smaller and less impactful mobile display ads instead of higher quality desktop or television ads, all in the name of “performance” marketing.

4. Pricing and Vicious Cycles

Unlike classic supply and demand curves, where an increase in supply will drive down the price at which a good is sold,¹⁶⁸ the digital ad market has different and rather unnatural pricing

[targeted-advertising/](#); Tom Goodwin, *Why making content on the internet free was our biggest mistake... and how to fix it*, WHAT’S NEW IN PUBLISHING (Aug. 9, 2019), <https://whatsnewinpublishing.com/why-making-content-on-the-internet-free-was-our-biggest-mistake-and-how-to-fix-it/>.

¹⁶⁵ Narseo Vallina-Rodriguez & Srikanth Sundaresan, *7 in 10 smartphone apps share your data with third-party services*, THE CONVERSATION (May 29, 2017), <https://theconversation.com/7-in-10-smartphone-apps-share-your-data-with-third-party-services-72404>.

¹⁶⁶ Rashmita Behera, *What is Bidstream Data?*, ADPUSHUP (Mar. 20, 2020) <https://www.adpushup.com/blog/what-is-bidstream-data/>.

¹⁶⁷ <https://1stdirectory.co.uk/blog/2016/04/mobile-banner-advertisers-paying-fat-fingers/>.

¹⁶⁸ *Supply and demand economics*, BRITANNICA, <https://www.britannica.com/topic/supply-and-demand> (last visited Sep. 25, 2020).

mechanics. In the programmatic ecosystem, the demand side controls the top of the cash waterfall. Moreover, due to a nearly endless supply of websites, each packed with countless ads, pricing for each ad is so low that you pay for ads by the *thousands*. This market imbalance exists because it is significantly easier for an individual to create a website than it is for an individual or business organization to create a programmatic (non-social) marketing campaign with various images and videos, translate all of those messages into ad tag code, implement tracking technologies to measure the ads' effectiveness, generate reports and insights, and so on. As a result, the supply curve is pushed to the outer right-hand bounds of the pricing curve, while demand remains extremely concentrated.¹⁶⁹

In such a market where supply drastically outweighs demand, competitive forces drive publishers to take actions harmful to both their bottom line and the user experience. Outside of established reputable publishers such as The Wall Street Journal or The New York Times, where much of the ad space is sold at premium prices, the prospect for the average website of receiving high-price bids from advertisers is low.¹⁷⁰ Thus, to increase their share of the total available bids, websites and apps are inclined to accept artificially low prices. They are also incentivized to collect and broadcast into the bidstream as many data points (objects) as possible, including cookies, device IDs, and the full plethora of objects the OpenRTB Model offers. Combined, this strategy decreases the risk of missing a buyer's bid due to a high price floor and increases the probability that the demand side's targeted objects will match the objects that the supply has to offer.

¹⁶⁹ Ola Rask, *What is Programmatic Advertising? The Ultimate 2020 Guide*, MATCH2ONE, <https://www.match2one.com/blog/what-is-programmatic-advertising/> (last updated June 23, 2020).

¹⁷⁰ Kane Tse, *Direct vs Programmatic Sales: Which is Better For Your Website?*, MEDIUM.COM (Jan. 24, 2017), <https://medium.com/wired-mesh/direct-vs-programmatic-sales-which-is-better-for-your-website-9fda0ea3a65a>.

The result is a vicious cycle where publishers share ever more information on their users, show more ads per page, and slow down web page load speeds.¹⁷¹ All the while, advertisers are keenly aware of their market power and can adjust their bidding tactics to maximize the number of ads they can buy – at the lowest possible price. The end product is a market where publishers are essentially powerless against buyers and take the easy route: have Google run the full tech stack and take advantage of the demand sources and exclusive, proprietary data that only Google can provide.¹⁷²

Broadly speaking, social media and ad tech are threatening society’s trust in the news we read.¹⁷³ Ads loaded with tracking code cause slow load times for news sites,¹⁷⁴ causing users to consume content elsewhere on social media, which is mostly user-generated content that does not adhere to the ethics of journalism.¹⁷⁵ Editors must now focus on gathering clicks and showing more ads just to stay in the black, rather than creating quality content for their peers and readers.¹⁷⁶ Consumer frustration with so many ads has triggered the growth of ad blockers and accelerated the shift to social media platforms, forcing publishers to show even *more* ads to those who have not downloaded such software or who do not yet consume their news on TikTok, Instagram, or Snapchat.¹⁷⁷

¹⁷¹ James Barnes, *Online Ads Are Slowing Web Page Loading Speed*, STATUSCAKE (June 20, 2017), <https://www.statuscake.com/online-ads-are-slowng-web-page-loading-speed/>.

¹⁷² Keach Hagey and Vivien Ngo, *How Google Edged Out Rivals and Built the World’s Dominant Ad Machine: A Visual Guide*, WALL ST. J. (Nov. 7, 2019), <https://www.wsj.com/articles/how-google-edged-out-rivals-and-built-the-worlds-dominant-ad-machine-a-visual-guide-11573142071>.

¹⁷³ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php.

¹⁷⁴ Bryan Chen, *Putting Mobile Ad Blockers to the Test*, THE NEW YORK TIMES, Oct. 1, 2015, <https://www.nytimes.com/2015/10/01/technology/personaltech/ad-blockers-mobile-iphone-browsers.html>.

¹⁷⁵ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php.

¹⁷⁶ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php.

¹⁷⁷ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php.

To claw back revenue and fight against the expansion of ad blockers and social media consumption, publishers shifted their auction mechanics and implemented new bid request processes to improve the price they receive per advertisement.¹⁷⁸ However, DSPs countered and developed algorithms to put downward pressure on ad prices and buy more ads with the same number of dollars, at the publishers' expense.¹⁷⁹ In fact, most of the time, the primary KPI for programmatic "branding" campaigns is solely to reduce the costs they pay for each ad.¹⁸⁰ These KPI-driven algorithms actually help advertisers and agencies pay *less* for every ad they buy, harming publishers, and ultimately hurting consumers.

E. Technical Issues

1. Discrepancies

A discrepancy is a difference in reporting metrics between two ad tech companies, caused by latency, inconsistent reporting and counting methodologies, and other issues stemming from a lack of standardization.¹⁸¹ For example, two of the simplest programmatic metrics are the total number of ads served, which directly correlates to how much money is spent, or the number of ads that received clicks. Yet even these uncomplex numbers are plagued by inconsistencies.¹⁸²

¹⁷⁸ Ratko Vidakovic, *Header bidding: What marketers need to know*, MARKETING LAND, Mar. 28, 2020, <https://marketingland.com/header-bidding-marketers-need-know-199311>; Boris Shterev, *First-Price Auction – What Does it Mean for Publishers?*, PUBGALAXY, Apr. 24, 2020, <https://www.pubgalaxy.com/first-price-auction-what-does-it-mean-for-publishers>.

¹⁷⁹ Elizabeth Anne Watkins, *Guide to Advertising Technology*, COLUMBIA JOURNALISM REVIEW (Dec.4, 2018), https://www.cjr.org/tow_center_reports/the-guide-to-advertising-technology.php; Sarah Sluis, *Everything You Need To Know About Bid Shading*, ADEXCHANGER, Mar. 15, 2019, <https://www.adexchanger.com/online-advertising/everything-you-need-to-know-about-bid-shading/>.

¹⁸⁰ Jessica Greene, *The 28 Advertising KPIs That Every Marketer Should Be Tracking*, DATABOX, May 28, 2019, <https://databox.com/most-important-advertising-kpis>; Lynne Wilson, *Top 4 Must-Measure Metrics for Tech Companies*, KIWI CREATIVE, <https://blog.kiwicreative.net/top-4-must-measure-metrics-for-tech-companies> (last visited Nov. 9, 2020).

¹⁸¹ Rashmita Behera, *A Complete Guide to Understanding Ad Discrepancy*, ADPUSHUP, Mar. 29, 2019, <https://www.adpushup.com/blog/ad-impression-discrepancy>.

¹⁸² Rashmita Behera, *A Complete Guide to Understanding Ad Discrepancy*, ADPUSHUP, Mar. 29, 2019, <https://www.adpushup.com/blog/ad-impression-discrepancy>.

Discrepancies can also arise when two ad tech vendors use different location-reporting technologies and cannot reconcile with certainty if an ad was served in New York or New Jersey or Denver due to different reporting methodologies.¹⁸³ The IAB noted that discrepancies on mobile location reporting platforms can be as high as 50%.¹⁸⁴ For more established systems such as desktop websites, discrepancies are “very low” at 5-10%.¹⁸⁵ Even Google admits that “it is common to see campaign variances of up to 20%.”¹⁸⁶

In a \$333 billion industry,¹⁸⁷ that means up to \$60 billion is simply missing from the supply chain, unaccounted for, or lost to cyberspace – as a matter of routine. What does it say about an industry’s regulatory approach where an issue that is “a monumental waste of time,” *and* causes the loss of up to \$60 billion annually is described as “common and expected”?¹⁸⁸

2. Poor Site Performance and the Ad Tech Tax

It is difficult to comprehend the scale of data collection today. More than 200,000 new gigabytes of data are generated every single second,¹⁸⁹ and much of that is driven by advertising-

¹⁸³ Rashmita Behera, A Complete Guide to Understanding Ad Discrepancy, ADPUSHUP, Mar. 29, 2019, <https://www.adpushup.com/blog/ad-impression-discrepancy>.

¹⁸⁴ *Mobile Discrepancies 2.0*, IAB, Nov. 2014, at 4, https://www.iab.com/wp-content/uploads/2015/07/Mobile_Discrepancies_2_0.pdf.

¹⁸⁵ *Mobile Discrepancies 2.0*, IAB, Nov. 2014, at 4, https://www.iab.com/wp-content/uploads/2015/07/Mobile_Discrepancies_2_0.pdf.

¹⁸⁶ *Investigate report discrepancies*, GOOGLE AD MANAGER HELP, <https://support.google.com/admanager/answer/6160380?hl=en> (last visited Nov. 9, 2020).

¹⁸⁷ Jasmine Enberg, Global Digital Ad Spending 2019, EMARKETER, Mar. 28, 2019, <https://www.emarketer.com/content/global-digital-ad-spending-2019>.

¹⁸⁸ Dave Marquard, *Ad-Tech Gridlock: Discrepancies Between Buy And Sell Sides Challenge Publishers*, REALTIME DAILY, Dec. 8, 2015, <https://www.mediapost.com/publications/article/264276/ad-tech-gridlock-discrepancies-between-buy-and-se.html> (“Discrepancies lead to long and difficult make-good conversations. We’ve heard from countless publishers that these talks are a monumental waste of time.”)

Investigate report discrepancies, GOOGLE AD MANAGER HELP, <https://support.google.com/admanager/answer/6160380?hl=en> (last visited Nov. 9, 2020) (“Reporting discrepancies are common and expected when multiple systems are used to measure line item delivery.”).

¹⁸⁹ Stacy-Ann Elvy, *Commodifying Consumer Data in the Era of the Internet of Things*, 59 B.C. L. REV. 423, 427 (Feb. 2018).

focused companies.¹⁹⁰ What’s more, ad tech platforms and advertisers – and *politicians themselves* – are incentivized only to increase their data harvesting practices to create better targeting and measurement capabilities because such precision is “unattainable for advertising in other media”¹⁹¹ and is dangerously effective for political advertising.¹⁹²

You can actually look at the OpenRTB Model and see the quantity of information passed within a single bid request/bid response exchange. The OpenRTB Model lists twenty-two objects that can be passed in a bid request, and a single object can contain up to twenty-seven attributes.¹⁹³ Google’s OpenRTB Guide provides an example bid request for a single web video ad, which contains more than 170 lines of code.¹⁹⁴ Further, when a single ad is then loaded with dozens of pieces of third-party tracking code – to determine its viewability, the content of the surrounding page, the amount of time your mouse hovered over the ad, and other ad-verification information – the amount of data that is collected grows exponentially.¹⁹⁵ These computationally burdensome interactions across advertising companies and websites drastically slow down page load times and cause people to bounce from the site before ever even reading the article.¹⁹⁶ In addition, third party data aggregators, measurement verification companies, and other ad tech intermediaries *all* charge

¹⁹⁰ <https://www.cnbc.com/2020/01/28/sp-500-dominated-by-apple-microsoft-alphabet-amazon-facebook.html>.

¹⁹¹ Julia Zukina, *Accountability in a Smoke-Filled Room: The Inadequacy of Self Regulation Within the Internet Behavioral Advertising Industry*, 7 Brook. J. Corp. Fin. & Com. L. 277, 278 (2012).

¹⁹² See generally “The Great Hack” movie.

¹⁹³ Jim Butler, *OpenRTB API Specification Version 2.5*, IAB REAL TIME BIDDING (RTB) PROJECT, Dec. 2016, at 15-16, <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>.

¹⁹⁴ https://developers.google.com/authorized-buyers/rtb/request-guide#openrtb-json_2 (find “Web Video” in Contents; click “OpenRTBJSON”; click “Show me the example”).

¹⁹⁵ Michal Wlosik, *What is Ad Verification and How Does It Work?*, CLEARCODE, <https://clearcode.cc/blog/ad-verification/> (last visited Sep. 25, 2020).

¹⁹⁶ *Ad code 'slows down' browsing speeds*, BBC NEWS (Feb. 15, 2019), <https://www.bbc.com/news/technology-47252725> (finding that almost sixty percent of page load time was due to ad placement and analysis of user behavior).

a fee and take a portion of the money that publishers would otherwise receive, resulting in what is known as the “ad tech tax.”¹⁹⁷

Within the programmatic display market in 2019, the ad tech tax caused more than \$11 billion to be funneled to tech intermediaries as fees for their services, while \$24 billion went to publishers.¹⁹⁸ In other words, nearly a third of publishers’ revenue was wiped off their bottom line.¹⁹⁹ However, unlike traditional taxes that go directly to government for benevolent purposes, “publishers and media buyers complain about not knowing where fees go.”²⁰⁰ The only consolation provided to many is “data, verification checks . . . or measurement and attribution”²⁰¹ which, at least as to the latter, are just gamified reports that ad tech companies use to appease brands and publishers alike and to receive more dollars to waste the following year.

IV. Rule

To alleviate the issues above, the FTC should promulgate a rule as follows:

A. Scope and Purpose

This rule is intended to regulate the online programmatic buying and selling of ads across websites and applications, outside the context of social media feeds and search results. For

¹⁹⁷ Ame He, *eMarketer’s New Ad Tech Tax Estimates Show One-Third of Spending Goes to Intermediaries*, EMARKETER (Aug. 5, 2019), <https://www.emarketer.com/content/emarketer-s-new-ad-tech-tax-estimates-show-one-third-of-spending-goes-to-intermediaries>.

¹⁹⁸ Ame He, *eMarketer’s New Ad Tech Tax Estimates Show One-Third of Spending Goes to Intermediaries*, EMARKETER (Aug. 5, 2019), <https://www.emarketer.com/content/emarketer-s-new-ad-tech-tax-estimates-show-one-third-of-spending-goes-to-intermediaries>.

¹⁹⁹ Ame He, *eMarketer’s New Ad Tech Tax Estimates Show One-Third of Spending Goes to Intermediaries*, EMARKETER (Aug. 5, 2019), <https://www.emarketer.com/content/emarketer-s-new-ad-tech-tax-estimates-show-one-third-of-spending-goes-to-intermediaries>.

²⁰⁰ Ame He, *eMarketer’s New Ad Tech Tax Estimates Show One-Third of Spending Goes to Intermediaries*, EMARKETER (Aug. 5, 2019), <https://www.emarketer.com/content/emarketer-s-new-ad-tech-tax-estimates-show-one-third-of-spending-goes-to-intermediaries>.

²⁰¹ Ame He, *eMarketer’s New Ad Tech Tax Estimates Show One-Third of Spending Goes to Intermediaries*, EMARKETER (Aug. 5, 2019), <https://www.emarketer.com/content/emarketer-s-new-ad-tech-tax-estimates-show-one-third-of-spending-goes-to-intermediaries>.

example, Facebook, Instagram, TikTok, Snap, Pinterest, Reddit, and other similar social media companies are not covered by this rule due to the fact that, by users taking *affirmative actions* such as creating an email-verified username and *choosing* to follow other specific accounts within the app or website (or cross-environment combination thereof) consumers should – and often do – have different expectations of privacy. However, if a consumer briefly visits a news website or downloads a non-login-based weather application, the consumer should have a greater expectation of privacy compared to having a 10-year-old Facebook profile.

Likewise, search-driven advertising results are characterized by a user’s affirmative actions (*typing* in specific keywords), which users should – and often do – realize are used for ad-driven search results. Accordingly, this rule does not apply to those ads seen in the sponsored results of a search engine.

As a general matter, then, the purpose of this rule is to standardize the programmatic auctions that monetize much of the internet outside of search and social media while prohibiting a series of related unfair and deceptive trade practices. The rule is not meant to affect the way a given website or app tracks and stores information about their users that is then used for non-advertising purposes such as product improvement or fraud detection. Instead, it is meant to (1) control and limit the sharing of certain user information by standardizing and prescribing the labelling of data points used in programmatic auctions, (2) adjust the incentives of those participating in these markets, and (3) eliminate acute practices the Petitioner believes are unfair and deceptive. Analogous to rules covering securities markets or trusts, where duties of full disclosure, care, and loyalty help improve market outcomes, so too does this rule intend to improve and increase disclosures in vastly complex and opaque digital advertising markets.

B. Definitions

- “**Ad**” or “**Advertisement**” means an image, video, audio recording, or any other sort of digital media that is intended for influencing customers or potential customers, marketing, brand awareness, direct response, or similar purpose, which are placed through software across the internet.
- “**App**” means an internet application, often downloaded through a mobile phone’s application store (*e.g.*, Android or iOS), that Users visit to consume content, exclusive of Social Media.
- “**Attribute**” means a string of human-readable computer code – programmed in plain, FTC-prescribed language – that provides additional non-User information about an Object.
- “**Bid**” or “**Bid Response**” means a programmatic offer sent by a DSP or similar Ad purchasing platform to buy an Ad.
- “**Bid Request**” means a programmatic request indicating to buyers that an Ad seller intends to sell an Ad at auction.
- “**CPM**” means the cost per thousand ads, calculated variably as, in the case of purchased Ads, $([\text{advertiser dollars spent}/\text{total Ads purchased}] * 1,000)$ or, in the case of sold Ads, $([\text{Publisher dollars received}/\text{Publisher Ads shown}] * 1,000)$.²⁰²
- “**Demand Side Platform**” or “**DSP**” means a software platform that advertisers, brands, or individuals use to buy Ads.
- “**Device**” means a User’s cell phone, computer, tablet, connected TV (“**CTV**”), or similar personal computational hardware system.
- “**Landing Page**” means a Site or other internet destination (*e.g.*, an app store) reached by a User clicking on an Ad.
- “**Media IO**” means a specific plan for an advertising campaign that includes a fixed budget, advertising creatives, desired sites, times of day, etc. and is executed through a DSP.
- “**Object**” means a programmable piece of information, exchanged during programmatic auctions.
- “**Registered Click**” or “**RC**” means a click where the User stayed on the Landing Page for at least three seconds.

²⁰² Calculating fees can be an extremely burdensome process at a DSP. There are perhaps a dozen permutations of CPM if you add on one "platform fee" at a time. For example, if you target an audience from Oracle, and use a brand safety measure from Integral Ad Safety, and use a fee-charging tool from a DSP, should those all be broken out by line item? A rulemaking in connection with this Petition, would need commentary from interested parties involved with billing.

- “**RTB**” or “**Real Time Bidding**” means the near-instantaneous process of buying and selling Ads through software-driven means, excluding Search and Social Media.
- “**RTB Participant**” means any advertiser, SSP, DSP, DMP, or other entity, organization, corporation, etc. that participates in or facilitates the buying and selling of RTB advertising, excluding any activity as a Search or Social Media platform.
- “**Publisher**” means the owner or developer of a Site.²⁰³
- “**Site**” means a Website or App, exclusive of Social Media.
- “**Social Media**” means a website, application, or combination thereof that Users visit to consume content generated by other Users and where Users may and often do post their own content. When determining if an entity qualifies as Social Media, the FTC shall consider factors including, but not limited to: (1) whether a User can “follow” other User’s accounts, (2) whether a User uses an email to log into the Social Media account, (3) the presence infinite scroll content feeds, (4) the existence primarily of “native” or in-feed Ads, and (5) the ability to “like,” “share,” “vote on,” “post,” “publish,” or “repost” content from other User’s accounts, and to do the same with the User’s own content.
- “**Supply Side Platform**” or “**SSP**” means a software platform that integrates with Sites, DSPs, and other marketing platforms for the purpose of helping a Site programmatically exchange Ads.²⁰⁴
- “**Tracker**” means a string of code (*e.g.*, a 1x1 image pixel) within the code of an Ad that is meant to transmit information about the Ad and is not strictly necessary to produce a rendering of the image, video, or audio content of the Ad.
- “**User**” means any natural person that visits a Site.
- “**Viewed Display Ad**” or “**VDA**” means a purchased display Ad that had at least 75% of its pixels in view for a User for at least 2 seconds.
- “**Viewed Video Ad**” or “**VVA**” means a purchased video Ad that had at least 33% of the video content played (*e.g.*, two or more seconds of a six second video Ad) while at least 50% of those pixels were in view (*e.g.*, for a six second video, 50% of the video was in view for the User for two or more seconds).
- “**Website**” means an internet website with a unique URL, reachable through a browser, that Users visit to consume content,²⁰⁵ exclusive of Social Media.

²⁰³ This definition needs commentary from supply side experts participating in the FTC Rulemaking Proceeding.

²⁰⁴ Some SSPs consider themselves to be “exchanges” or “networks”. This definition has been left very open-ended because simplifying the supply chain “nodes” through rule-based definitions could help clean it up. Need commentary from SSPs participating in the FTC Rulemaking Proceeding..

²⁰⁵ “Consuming content” is left open-ended enough to allow for flexibility. The real thing that counts is time spent on screen on a given website/app, so “consuming content” seemed to be broad enough.

C. Auction Rules²⁰⁶

1. Data Format and Objects; HTTP Connections

- **Data Format and Compression**

- All auctions and related data transfers shall be in Java Script Object Notation (“JSON”) format.
- All RTB Participants shall, when possible, encode and compress data in order to improve computational performance.

- **Permitted Objects.**

- For any individual Bid Request, a Site may not include any Object outside of those prescribed in Section IV.E below.
- For any individual Bid, a DSP may not include any Object outside of those prescribed in Section IV.E below.

- **Secure Transport**

- All exchanges among Sites, DSPs, SSPs, and other URLs during RTB auctions and related internet connections shall be in the secure (HTTPS, not HTTP) format.

- **HTTPS Connection**

- Any Site, DSP, SSP, or other RTB auction participant shall, when possible, use HTTPS Persistent Connections/Keep Alive Connections in order to improve computational performance.

2. Ad-Specific Information

- **Tracking Technologies²⁰⁷**

- Any Ad generated by an advertiser or its agents for the purpose of RTB shall not contain Trackers except those implemented for the purpose of
 - 1. Counting the number of Ads an advertiser purchases,
 - 2. Determining whether the Ad was clicked by a User,
 - 3. Determining whether the Ad was in-view.

- **Ad Payload**

- Any Ad placed by an advertiser via a DSP shall not be of a file size larger than [INSERT].²⁰⁸

²⁰⁶ Much of the rules here mirror the OpenRTB V2.5 best practices.

²⁰⁷ This section severely limits what advertisers can do with their ad tag providers and would put a lot of companies pretty much out of business. This provision needs commentary to determine other permissible trackers, such as advertiser-side brand safety trackers.

²⁰⁸ This provision needs commentary to find an appropriate number here.

- **Display Ad Dimensions**²⁰⁹
 - Any Ad placed by an advertiser via a DSP shall not be of any pixel dimension except:
 - 300x250,
 - 250x250,
 - 120x600,
 - 300x600,
 - 600x300,
 - 728x90, or
 - 320x50.

- **Video Ads**
 - **Aspect Ratio**
 - Any video Ad placed by an advertiser via a DSP shall not be of any aspect ratio except:
 - 16:9,
 - 4:5, or
 - 16:9.
 - **Duration**
 - A video Ad shall not be of any duration (with a buffer allowance of +/- 1 second) except:
 - 6 seconds,
 - 12 seconds,
 - 15 seconds, or
 - 30 seconds.
 - **Companion Banners and Additional Media Prohibited**
 - A video Ad shall not contain a companion banner or any other media or image or series of images that overlays, appears next to, enhances, extends, or otherwise changes the basic format or rendering of a video Ad.

- **Audio Ads**
 - Any audio Ad by an advertiser via a DSP shall not be of any duration except:
 - 6 seconds,
 - 12 seconds,
 - 15 seconds, or
 - 30 seconds.

- **Expandable, Dynamic, and Similar Ads**²¹⁰
 - Any Ad placed by an advertiser by a DSP shall not:

²⁰⁹ Again, this section severely limits what companies like TripleLift do, which is specialized (AKA, annoying) ads that can expand, move as the page moves, etc. But since such ads harm user experience and drive people to social media, where ad experience is seamless, Petitioner felt prescribing only the most common formats would be best. This would be a huge cost-reducer for publishers as well because it eliminates the costs associated w/ SSP integrations.

²¹⁰ This section is intended to eliminate the use of Ads that move about and change within a Site for the purpose of generating more (often inadvertent) clicks or more time in view (often as a user attempts to scroll to avoid the Ad).

- Expand,
 - Change dimensions,
 - Move about the Site as a User scrolls to other parts of the Site, or
 - Otherwise act dynamically in response to User actions.
- Any display Ad may, *within* the Ad, incorporate dynamic content, provided that such dynamics are triggered automatically or by a User scrolling alongside or past the Ad, rather than triggering such dynamics via a User’s mouse movements.
- **Price Floors and Minimum Bids**²¹¹
 - Any Bid or Bid Request shall:
 - In the case of display Ads, be at least \$5.00 CPM,
 - In the case of video Ads, be at least \$30.00 CPM, and
 - In the case of audio Ads, be at least \$10.00 CPM.
- **Tracker Placement**
 - When multiple Trackers of the same purpose (*e.g.*, two click-tracking Trackers) are placed in an Ad, each Tracker shall be placed as close as possible to the other within the code of the Ad, and each Tracker shall use the most similar counting methodologies technologically possible.
- **Clicks**
 - Any RTB Participant may not count or give credit to any click other than a Registered Click as defined above.
- **Viewability**
 - Any RTB Participant may not consider an Ad to be viewed by a User other than a VDA or VVA as defined above.

3. Supply Side Practices

- **Duplicate Bid Requests**²¹²
 - A Site shall not send a single Bid Request to more than one SSP for an individual, unpurchased Ad Slot.
 - An SSP shall not send a single Bid Request to a single DSP more than one time.
- **Supply Quality Assurance**²¹³

²¹¹ This provision needs commentary to find out best price floors to set. Petitioner does not think these prices are high enough. Petitioner’s thought is to set floors high enough such that advertisers will have to think more carefully about what ads they buy and what websites they want to run on. This section will help combat cookie bombing, similar CPM-decreasing optimization algorithms, and should lower the server costs on the demand side by reducing the number of bids sent out by DSPs.

²¹² This is intended to reduce the supply chain complexity that currently exists which gives rise to DSPs receiving duplicate bid requests for the same individual ad slot. This provision needs commentary from supply side here.

²¹³ This section is where a Technical Advisory Committee could be particularly beneficial. Petitioner is not an expert on supply side or fraud-related issues, so this section needs more commentary and more expert guidance.

- Each SSP shall ensure that every Site the SSP integrates with has 100% non-fraudulent traffic. The SSP shall be responsible to the advertiser for any Ads not shown to Users due to the presence of fraudulent traffic.
 - Any Publisher shall adopt ads.txt²¹⁴ before selling Ads or attempting to integrate with an SSP.
- **Legal Signals**²¹⁵
- Additional objects or attributes may, from time to time, be added into the Object Model below to indicate if a site is, for example, regulated by COPPA's requirements.
4. Demand Side Practices
- **Site Targeting**²¹⁶
- A DSP shall not simultaneously, within a single advertising campaign, attempt to spend a given fixed budget across more than 500 Sites.
- **Changes to Media IO**²¹⁷
- A person buying Ads through a DSP shall not change any of the Objects initially provided by the advertiser or agency in the Media IO and implemented into the DSP without the written approval from the advertiser itself. Such actions without advertiser permission shall constitute an unfair and deceptive trade practice.
- **Data Sharing and Collection**
- A DSP shall not:
 - Share any advertiser practices, data, trade secrets, Media IOs, other any other information, however defined, from one advertiser to another; or
 - Store any data on any Bid Request that the DSP did not win or attempt to win, including but not limited to data on IP addresses, devices, Sites, times of day, user agent strings, or other information, whether or not for the purpose of creating User profiles.²¹⁸
- **Internal Auctions Prohibited**

²¹⁴ <https://iabtechlab.com/ads-txt/>.

²¹⁵ See pg. 17 of OpenRTB V2.5 for COPPA signals: <https://www.iab.com/wp-content/uploads/2016/03/OpenRTB-API-Specification-Version-2-5-FINAL.pdf>. This section has extremely strong potential to reduce legal costs of conducting advertising activities online.

²¹⁶ This is intended to reduce reporting burdens on all parties and encourage advertisers to more carefully select the Sites they run on.

²¹⁷ This is to eliminate what Petitioner believes is a *per se* unfair or deceptive practice that defrauds advertisers out of billions of dollars - the altering of programmatic campaigns after a media IO is sent out of the brand's office. Once in the hands of an agency or DSP, there is no accountability, which this section tries to address.

²¹⁸ Petitioner is trying to implement data minimization practices.

- A DSP shall not conduct an internal auction across two or more advertisers when ingesting a single Bid Request (*i.e.*, first come, first serve basis).²¹⁹
- **Browser Information**²²⁰
 - A web browser shall not disclose, use, or otherwise make available to RTB Participants, any browser cookies, grouped cohorts of Users, or any similar technology to inform parties to an RTB auction about the User on that browser.

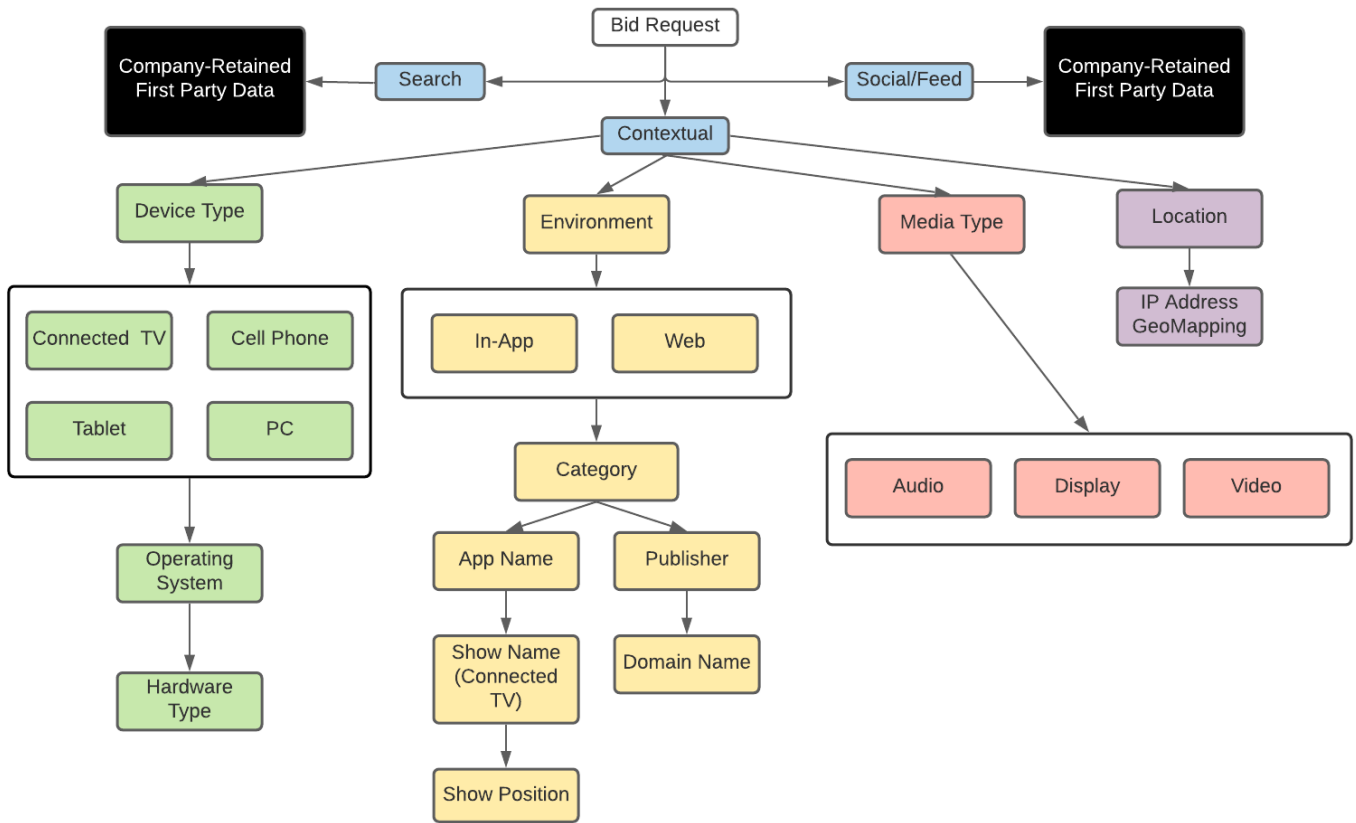
E. Permitted Objects and Object Model

This object model below displays all of the permissible objects under this rule. Any RTB Participant that does not adhere to this model shall be deemed to have engaged in unfair and deceptive trade practices in violation of the FTC Act. In essence, this “Proposed Object Model” constitutes the objects that may be targeted by advertisers, or offered by publishers, during Real Time Bidding.²²¹

²¹⁹ Petitioner is unsure if it is really bad to run internal auctions for DSPs. Brands would want this in order to save money, but publishers prefer it since it increases revenues. At the very least, the DSP should disclose the fact that it conducts such auctions.

²²⁰ Petitioner is trying to eliminate Chrome's advantage here. Need to fix wording or consider alternative placement.

²²¹ Notably, there is no User object allowed here.



V. Market Impacts

A. Introductory Note

The predicted effects of this rule are logically analogous to Michael Lewis’s 2014 book *Flash Boys*. There, the protagonists levelled the playing field by adding a speed bump to electronic financial trades, allowing smaller investors to compete with high frequency trading firms. Likewise, this Proposal seeks to level the playing field in non-login-based programmatic advertising by creating (software-based) rules somewhat analogous to those in securities-like markets. However, unlike SEC rules designed for informed markets and full disclosure form publicly traded companies, these are more analogous to GAAP accounting principles to standardize counting and crediting certain actions.

B. Predicted Changes

1. Antitrust

- By removing the user object (see Section IV.E), publishers and app developers will no longer need to rely on Google’s other tools to find audience-focused ad buyers. Google will thus lose a competitive advantage due to the elimination of network effects stemming from its combined dataset of the DSP, SSP, DFP, and Search products. Publishers also will have lower switching costs for their publisher-side ad servers, increasing their ability to move off of Google.
- By setting price floors (see Section IV.C), publishers will be able to maintain adequate revenues without having to rely on Google to find an adequate number of buyers.

2. Lower Technical Costs

- By standardizing the object model (see Section IV.E), publishers, SSPs, DSPs, and all other platforms will no longer have to create or implement custom API documentation/integrations and will avoid all associated costs.
- By standardizing counting methodologies (see Section IV.C), discrepancies will be reduced, thereby lowering the costs of determining causes, and lowering the cost of “lost” impressions described in Section III.E.1.
- By creating a limited set of ad formats (see Section IV.C):
 - Publishers will avoid the costs associated with vetting, integrating, and testing new “splashy” ad formats;
 - DSPs will also no longer have to incur the costs of adjusting their software and bidding technologies to include these various formats; and
 - Publisher-side servers and the associated human technical resources (needed to operate the website or app) will have lower costs due to reduced variation in advertising-related operations.
- By setting price floors (see Section IV.C), publishers will have a lower incentive to integrate with several SSPs, lowering integration, setup, and server costs.

3. Lower Legal Costs

- The FTC will quickly and easily be able to check for compliance with the rule (and other legal signals such as COPPA, see Section IV.C) simply by requesting the company to produce a bid response or bid request.
- Costs of adhering to GDPR’s principles, especially the minimization principle and accountability principle (and the burden of proving compliance) will be lowered because all a publisher will have to do for their advertising-related businesses is produce a bid request that adheres to objects prescribed by this rule in Section IV.E.

- Privacy policies and similar consent-based notices will be easier to create due to the simplified nature of advertising and data sharing during programmatic auctions.

4. Improved User Experience

- By creating a limited set of ad formats (see Section IV.C), users will no longer experience an invasive and annoying series of ads on an average website (*e.g.*, ads that follow you as the page scrolls), and will enjoy faster loading times.
- By removing the user object (see Section IV.E), the costs and time of identifying that user will be reduced (*e.g.*, “daisy chains”²²²), thereby improving website loading times.

5. Shift in Demand-Side Behavior

- By removing the user object (see Section IV.E):
 - Advertisers will no longer have an incentive to track users in anything and everything they do, improving our sense of privacy and trust in the websites or apps we use;
 - The issues associated with attribution modelling (see section III.C) will be eliminated;
 - Advertisers and demand-side technologies (DSPs, data brokers) will no longer be able to create fraudulent or extremely inaccurate audiences;
 - The incentive to use fingerprinting or develop other anti-tracking circumvention technologies will be eliminated;
 - Instead of allowing data brokers to extrapolate publisher audience data and expropriate value that should rightly belong to publishers, publishers will retain and enhance the value of their first party audience data;
 - Advertisers will shift to contextually-targeted ads and focus on their ads’ content and *what* is rendering on the page, rather than on *who* is on the page or app at the moment, thereby improving the quality and messaging of the ads we see; and
 - Intermediaries contributing to the ad tech tax (*e.g.*, identity-focused companies like LiveRamp) will lose their ability to track users, allowing more dollars to funnel directly to independent publishers.
- By standardizing clicks and eliminating fraudulent or inadvertent clicks (see Sections IV.B and IV.C), advertisers will no longer waste dollars on bot farms, or websites and apps that drive erroneous clicks via the fat finger effect (see Section III.D).

6. Adherence to FIPPS

- Transparency
 - By walling off search, social, and similar contexts where the user does not affirmatively and consciously expose information about herself, and by

²²² Daisy chains are a costly and time-consuming process <https://clearcode.cc/glossary/daisy-chain/>.

removing the user object (see Section IV.E), the rule will give effect to reasonable expectations of privacy and eliminate the pervasive background monitoring and tracking conducted by the OpenRTB ecosystem.

- By standardizing the object model (see Section IV.E), the FTC will have full visibility into potentially privacy-invasive advertising techniques and technologies.
- Data Minimization
 - By eliminating DSPs’ ability to store auction data (See Section IV.C), data minimization will be improved.
 - Notice and Consent
 - By eliminating non-email-based targeting, users will feel they have more understanding and notice of how their information is actually used and stored by ad tech companies.

C. Alternatives

Instead of issuing § 553 notice and comment rulemaking proceedings, the FTC instead could consider establishing a Technical Advisory Committee (“TAC”). One of the FTC’s most recent TACs was established in 2000²²³ to “provide advice and recommendations” to the FTC for “access and security information practice principles, and the costs and benefits of each option.”²²⁴ Analogous to the Advisory Committee on Online Access and Security,²²⁵ the FTC could charge an “Advisory Committee on Programmatic Advertising” with fleshing out the full details of an ideal OpenRTB API Specification for market participants. However, unlike the 2000 TAC, where industry interests such as the American Association of Advertising Agencies participated in the process²²⁶ with what could be viewed as a conflict of interest, the TAC established here should be

²²³ <https://www.ftc.gov/reports/privacy-online-fair-information-practices-electronic-marketplace-federal-trade-commission>.

²²⁴ <https://www.ftc.gov/news-events/press-releases/1999/12/ftc-establishes-advisory-committee-online-access-and-security>.

²²⁵ <https://www.ftc.gov/news-events/press-releases/1999/12/ftc-establishes-advisory-committee-online-access-and-security>.

²²⁶ <https://govinfo.library.unt.edu/acoas/papers/finalreport.htm>.

comprised exclusively of privacy-focused professionals and those without an interest in monetizing the exchange of user information, especially via the user object.

VI. Conclusion

Petitioner respectfully submits this suggested rule for promulgation in the Federal Register for public comment under § 553 of the APA. The FTC is better positioned than any other entity – legislative, judicial, administrative, regulatory, industry group or standards body– due to its technical expertise and lesser susceptibility to economic pressure or political influence. The misaligned incentives, deceptive and unfair trade practices, fraud, discrepancies, and privacy-invasive behaviors of market participants can only be quelled through a de-politicized approach via an agency.

This rule will achieve desperately needed antitrust objectives by lowering switching costs, reducing network effects, and lower the costs of entry for new market participants who do not have as comprehensive user-bases as compared to Google or Facebook. It will also eliminate privacy-invasive and deceptive behaviors by eliminating any incentive to collect, directly or indirectly, user information for the purpose of behavioral advertising.

Respectfully Submitted,

/s/ Jonathan Askin

Jonathan Askin
Professor of Clinical Law
Brooklyn Law School
250 Joralemon Street
Brooklyn, NY 11201
1-718-780-0622
jonathan.askin@brooklaw.edu