The State Of The Open Internet

A data-driven perspective on the forces that will shape the ad-supported open internet in 2024

JOUNCE MEDIA

About this research

Jounce Media is the industry leader in programmatic supply chain management and is trusted by the world's largest marketers, media companies, and advertising technology platforms to inform high efficiency buying and selling strategies.

Powered by a combination of public ad tech disclosures and private data sharing agreements, we maintain the industry's most comprehensive data set that tracks supply and demand across all global RTB-traded websites, mobile apps, and CTV apps.

This annual report provides our data-driven perspective on how marketers will deploy paid media investments in 2024 and the market forces that are driving share shift among open internet media companies and advertising technology providers.

Summary Findings

The open internet is in the midst of a building tension between competing market forces. Four of those market forces have gradually tugged the open internet toward dysfunction:

- **Audience Gatekeepers:** A small number of platforms have earned consumer trust as the starting point for nearly every digital media experience, giving them leverage to extract a toll from open internet media companies in return for providing distribution.

- **Demand Concentration:** The largest platforms don't just control supply (consumer attention). They also control demand (dollars). And they are steering both toward O&O walled gardens in favor of open internet websites and apps.

- **Bidstream Congestion:** Open internet media companies are financially incentivized to conduct multiple concurrent auctions for each available impression, creating a crowded bidstream that is aggressively filtered by ad tech platforms. The great majority of auctions are never made available to DSP buyers, undermining the liquidity promise of programmatic advertising.

- **Signal Fidelity:** Publishers and their SSP partners are not rewarded for providing accurate targeting information to buyers. Instead, the sell-side financial incentive is to take a loose interpretation of industry standards and flirt with misrepresentation.

Summary Findings

But across all four of these vectors, the industry is showing signs of course correction.

- Open internet media companies that build loyal audiences operate with higher margins and attract more DSP demand than those with a high dependence on paid traffic.

- Open internet demand is shifting away from incumbents like Google and Meta toward ad tech platforms whose long term interests are aligned with the open internet.

- Marketers are shifting budgets toward DSPs and ad networks that are allocating limited infrastructure resources toward high efficiency supply chains – either publisher-direct integrations or "fat pipe" SSP integrations.

- DSPs and their verification partners are building new capabilities to measure signal fidelity and are steering spend toward publishers and SSPs that provide reliable targeting information.

The sell side of the open internet is extremely responsive to demand, and demand is now controlled by a small number of DSPs and ad networks that are voting with their wallets. The collapse of MFA supply in 2023 illustrates the opportunity for powerful buy side operators to reset publisher incentives and restore trust and growth in the open internet.

Audience Gatekeepers

A small number of platforms have earned consumer trust as the starting point for nearly every digital media experience, and these companies have leverage to extract a toll from open internet media companies in return for providing distribution.

Traffic acquisition economics underpin every open internet media business, and those that build loyal audiences operate with higher margins and attract more DSP demand than those with a high dependence on paid traffic.

Audience Gatekeepers

Traffic to open internet media companies is distributed by a small number of platforms. On the web, Google search and Facebook dominate referrals. In the mobile app space, Android and iOS manage every app install. And similarly in the CTV category, smart TV manufacturers control distribution of streaming services.

These companies have earned consumer trust and are the starting point for nearly every digital media experience. And that privileged position gives audience gatekeepers leverage to extract a toll from open internet media companies in return for providing distribution.

CTV

In the CTV category, original equipment manufacturers (OEMs) like Roku and Amazon negotiate sales rights in return for

Audience Gatekeepers

distributing streaming services like Pluto TV and Tubi. Particularly when pre-installing these apps, but even for simply making these apps available in a CTV app store, the device OEM[1] often successfully negotiates rights to monetize a portion of ad pods. Streaming services would of course prefer free distribution, but inventory split arrangements are generally accepted as normal business practice and do a reasonably effective job of aligning the interests of app developers and OEMs – high quality advertising experiences lead to more consumer engagement, which creates more supply for both the app developer and the OEM to monetize.

Mobile Apps

In the mobile app category, developers are accustomed to paying Google and Apple for app store promotion. More specifically, app developers pay a per-user bounty when promoted app store listings drive consumers to download and install an app. This dynamic is far less harmonious than CTV inventory splits in two ways. First, Apple's App Tracking Transparency (ATT) initiative kneecaps the ability of app developers to drive installs through third party advertising networks like AppLovin and ironSource, stifling competition and driving customer acquisition costs toward iOS app store promotion. Second, the app stores have no incentive to encourage high quality advertising experiences. Recouping the customer acquisition costs paid to Google and Apple leads some app developers, particularly hyper-casual
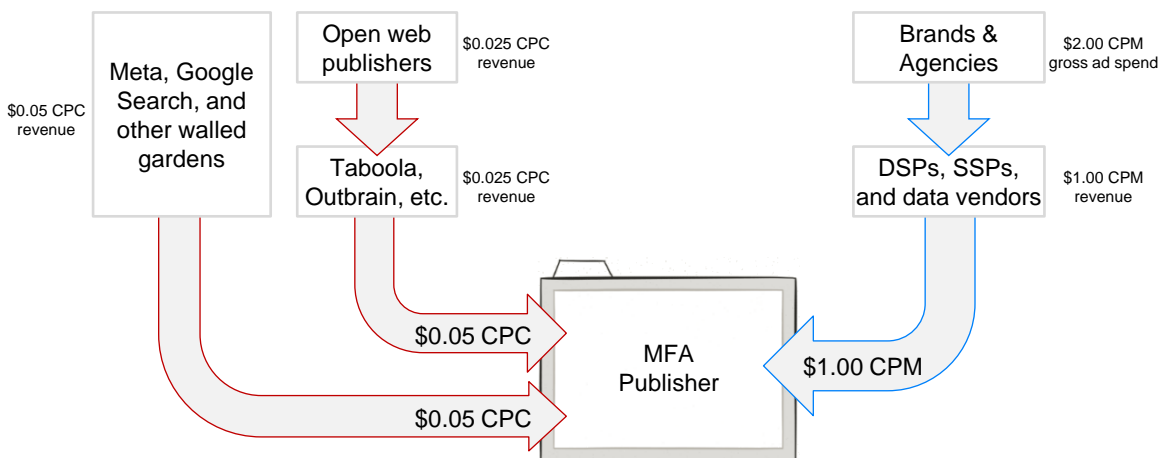
Audience Gatekeepers

gaming developers, to create aggressive advertising experiences that erode the quality of the open internet.

Websites

But the environment where audience acquisition economics are most dysfunctional is the web. Like mobile app developers, web publishers increasingly source their traffic from two aggregators of consumer attention – Google Search and the Facebook app. Also like mobile app developers, web publishers see declining organic referrals and increasingly need to pay aggregators for traffic. But unlike mobile app developers, web publishers can recoup their customer acquisition costs in a single user session, and that creates an unhealthy arbitrage opportunity that looks like this:

Traffic Acquisition Cost
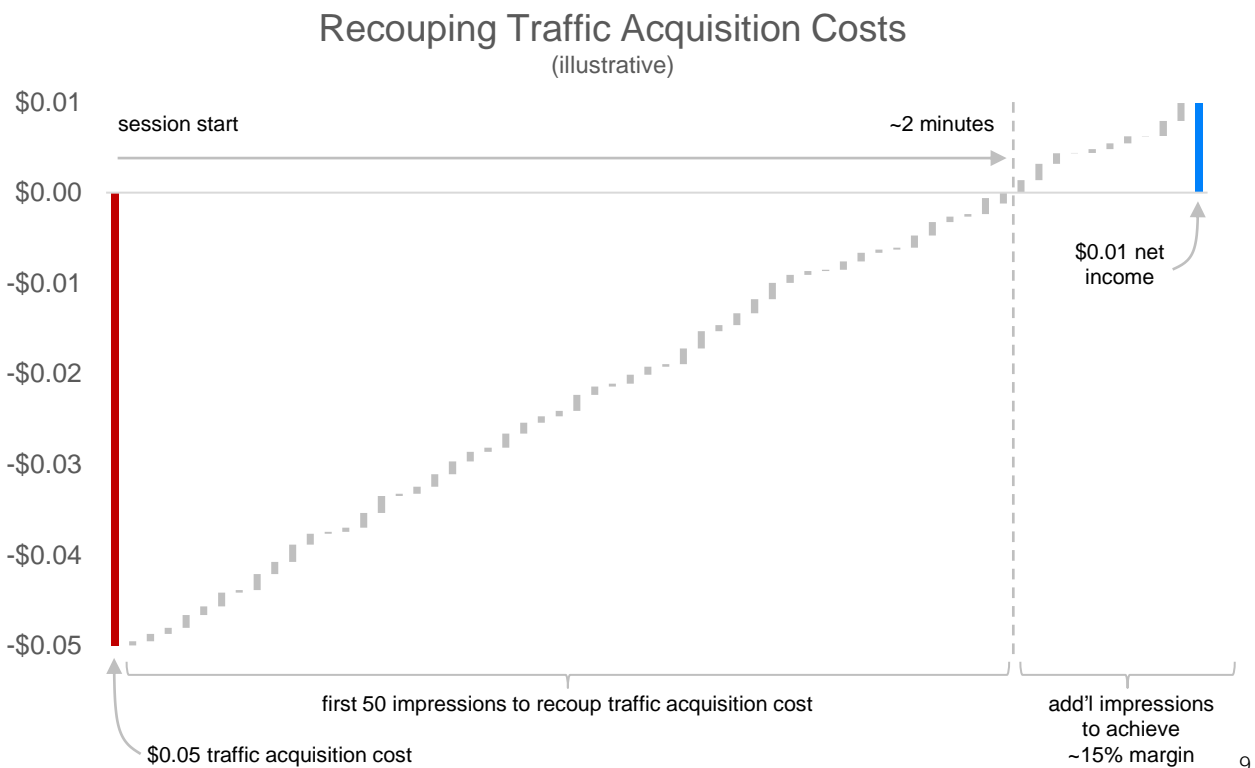$0.05 per user session

Programmatic Advertising Revenue
$2.00 CPM gross ad spend per impression

| Meta, Google Search, and other walled gardens | Open web publishers — $0.025 CPC revenue | Brands & Agencies — $2.00 CPM gross ad spend |

$0.05 CPC revenue

Taboola, Outbrain, etc. — $0.025 CPC revenue

DSPs, SSPs, and data vendors — $1.00 CPM revenue

$0.05 CPC

$0.05 CPC

MFA Publisher

$1.00 CPM

Breakeven at approximately 50 impressions

Audience Gatekeepers

Web publishers run clickbait ads on Facebook, Google Search, and content recommendations platforms like Taboola and Outbrain and pay these traffic suppliers approximately $0.05 per click. Recouping that traffic acquisition cost requires publishers to sell approximately 50 ad impressions at a $1.00 average CPM. And that's possible in a single site visit with a sufficiently aggressive advertising experience that combines high ad density, rapidly auto-refreshing banners ads, and auto-playing videos. Margins are thin, but the ad arbitrage business model is viable for web publishers:

Recouping Traffic Acquisition Costs
(illustrative)

session start

~2 minutes

$0.01 net income

first 50 impressions to recoup traffic acquisition cost

add'l impressions to achieve ~15% margin

$0.05 traffic acquisition cost

9

Audience Gatekeepers

We call this business model Made For Advertising (MFA), and our research indicates that ads served on MFA websites are uniquely ineffective at influencing consumer purchase decisions[2]. But our research also indicates MFA supply can achieve vanity metrics that automated bidding algorithms reward[3]:

- MFA ad products demonstrate higher ad viewability and higher video completion rates than non-MFA supply

- MFA websites tend to host entertainment content that is unlikely to be blocked by brand safety filters

- MFA auctions clear at prices that are lower than non-MFA supply

And so automated DSP bidding algorithms fueled MFA publishers with sufficient demand to justify ongoing paid traffic acquisition, enabling the MFA category to grow.

But these market conditions changed abruptly in June 2023 when the Association Of National Advertisers Programmatic Media Supply Chain Transparency Study[4] raised awareness about MFA inventory and triggered industry-wide efforts to give buyers choice about whether to deploy investments to MFA publishers. Buyers appear to be overwhelmingly choosing to avoid MFA supply, thinning demand and breaking a fragile business model.

2: https://jouncemedia.com/research-portal/monthly-spo-reports-blog/may-2022
3: https://jouncemedia.com/research-portal/monthly-spo-reports-blog/august-2021
4: https://www.ana.net/miccontent/show/id/rr-2023-12-ana-programmatic-media-supply-chain-transparency-study

Audience Gatekeepers

The result is a stunning decline in MFA supply over the last 9 months:

MFA Supply As A Percent Of All Web Bid Requests

ANA Programmatic
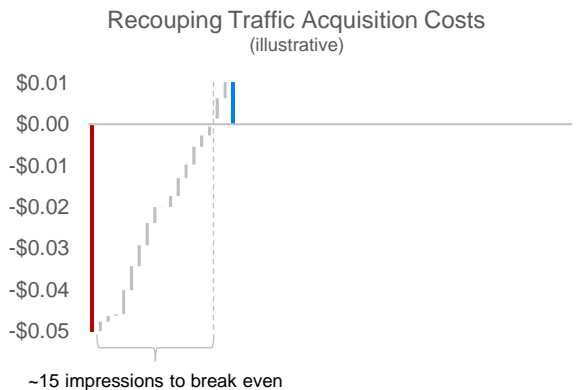Supply Chain
Transparency Study
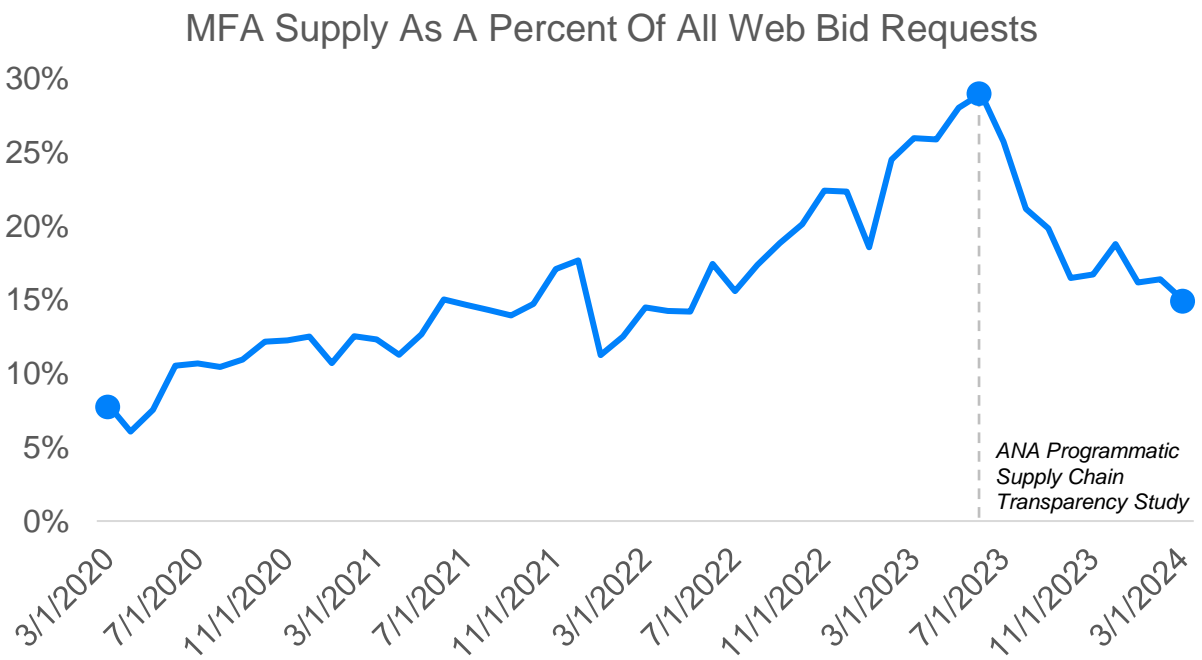
The most premium web publishers will capture a greater share of DSP investments in 2024 than they did in 2023. But the challenges of audience development remain. Unpaid referrals from Google and Meta are unpredictable, and arbitrage is under intense pressure. Web publishers now find themselves in a damned-if-we-do, damned-if-we-don't position. Engaging in ad arbitrage compresses operating margins and creates risk of being blocked by large buyers. But committing to an organic-only audience strategy exposes media companies to a volatile

Audience Gatekeepers

downward trend of unpaid referrals from Google and Meta. We see only two durable futures for ad-supported web publishers, and both rely on continued utilization of paid traffic:
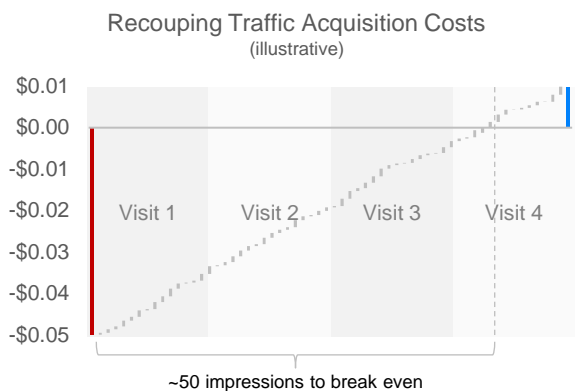
Revenue Diversification

Web publishers that monetize through a combination of programmatic advertising, direct-sold sponsorships, and affiliate e-commerce partnerships can compress the payback period of paid traffic acquisition. Through diversified revenue streams, these publishers can profitably acquire traffic while maintaining a consumer-first advertising experience.

Recouping Traffic Acquisition Costs
(illustrative)

$0.01	
$0.00	
-$0.01	
-$0.02	
-$0.03	
-$0.04	
-$0.05	

~15 impressions to break even

Audience Loyalty

Repeat visitation, most commonly through email newsletters, creates leverage for publishers to justify paid traffic acquisition. Publishers that have a proven playbook for driving multiple unpaid return site visits might still require a 50-impression payback period but can confidently recoup traffic acquisition costs over the lifetime of a consumer relationship.

Recouping Traffic Acquisition Costs
(illustrative)

$0.01	
$0.00	
-$0.01	Visit 1 Visit 2 Visit 3 Visit 4
-$0.02	
-$0.03	
-$0.04	
-$0.05	

~50 impressions to break even

Audience gatekeepers require media companies to pay for distribution. The success or failure of open internet publishers, particularly on the web, hinges on their ability to profitably acquire traffic without eroding the user experience.

Demand Concentration

The largest platforms don't just control supply (consumer attention). They also control demand (dollars). And they are steering both toward O&O walled gardens in favor of open internet websites and apps.

As a result, open internet demand is now shifting away from incumbents like Google and Meta toward ad tech platforms whose long term interests are aligned with the open internet.

Demand Concentration

Each time Google, Meta, or another aggregator of consumer attention sends traffic to an open internet media company, it forgoes the opportunity to more directly engage with that consumer and monetize the consumer's attention. Said differently, the audience gatekeepers we discussed in the prior section of this report have a structural advantage in building media businesses because they have zero marginal cost to acquire an audience. These companies have of course made giant fixed cost investments in building products that consumers love, and attaching a media business to a loyal consumer base creates a high margin value multiplier on those investments.

And so unless an open internet media company is willing to pay above fair market value to acquire traffic, the rational behavior of Google is to drive consumers to YouTube. Similarly, the rational behavior of Meta is to keep users scrolling through their feed, and the rational behavior of Amazon is to steer consumers toward the Prime Video app. Further, the outsized share of consumer attention controlled by these platforms gives them leverage to operate as walled gardens – digital media companies that do not accept demand from third party DSPs and ad networks and instead control the end-to-end supply chain.

There are nine walled gardens that will each manage at least $1B of advertising budgets in 2024. Five of these nine companies

Demand Concentration

also operate ad networks or DSPs that deploy ad budgets to open internet media companies.

	Estimated 2024 Total Managed Ad Spend ($B)	Estimated 2024 O&O Ad Spend ($B)	Estimated 2024 Open Internet Ad Spend ($B)	Open Internet As A % Of Total
Meta	$154.6	$153.0	$1.6	1.0%
amazon	$58.3	$46.8	$11.5	19.7%
Google	$67.6[6]	$36.5	$31.1	46.0%
TikTok	$20.8	$20.8	-	-
Linked in	$7.2	$5.4	$1.8	25.0%
Snap Inc.	$4.6	$4.6	-	-
Pinterest	$3.3	$3.3	-	-
Walmart	$4.3	$3.2	$1.1[7]	25.8%
X	$1.2	$1.2	-	-

We estimate smaller walled gardens, primarily in the retail media category, will capture an additional $6.4B of O&O spend in 2024.

6: Excludes Google Search
7: Walmart's open internet spend is powered by The Trade Desk and is reflected as TTD gross ad spend in all future pages of this report

Demand Concentration

The integrated view of non-search digital advertising reveals a market dominated by walled gardens that are both the largest competitors to open internet media companies and the largest sources of demand for open internet media companies.

Estimated 2024 Global Non-Search Digital Ad Spend

The Google Internet

The Meta Internet

The Open Internet

The Challenger Gardens

The Amazon Internet

$1B The size of the bubble represents gross ad spend
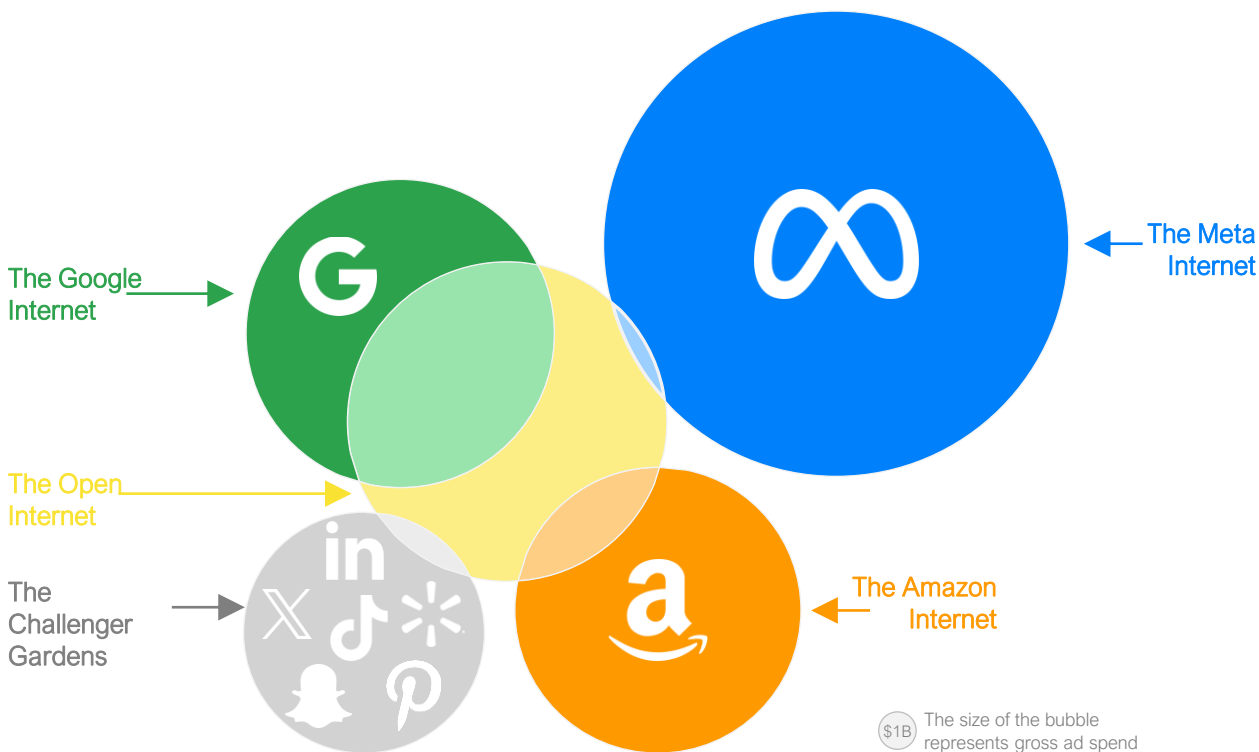
Audience gatekeepers control both supply (consumer attention) and demand (dollars). And they are steering both toward O&O walled gardens in favor of open internet websites and apps[5].

Demand Concentration

Global non-search digital advertising has almost tripled in the last 7 years – growing from $129B in 2017 to $354B in 2024. 100% of that growth has accrued to the walled gardens. The open internet – digital media companies that accept demand from third party ad networks and DSPs – has stagnated at approximately $70B per year. If you squint at the chart below, you'll see a downtick through the 2020 Covid slump and a return to low single digit growth beginning in 2021.

Global Non-Search Digital Advertising ($B)

Legend: Challenger Gardens, Amazon O&O, YouTube, Meta O&O, Open Internet
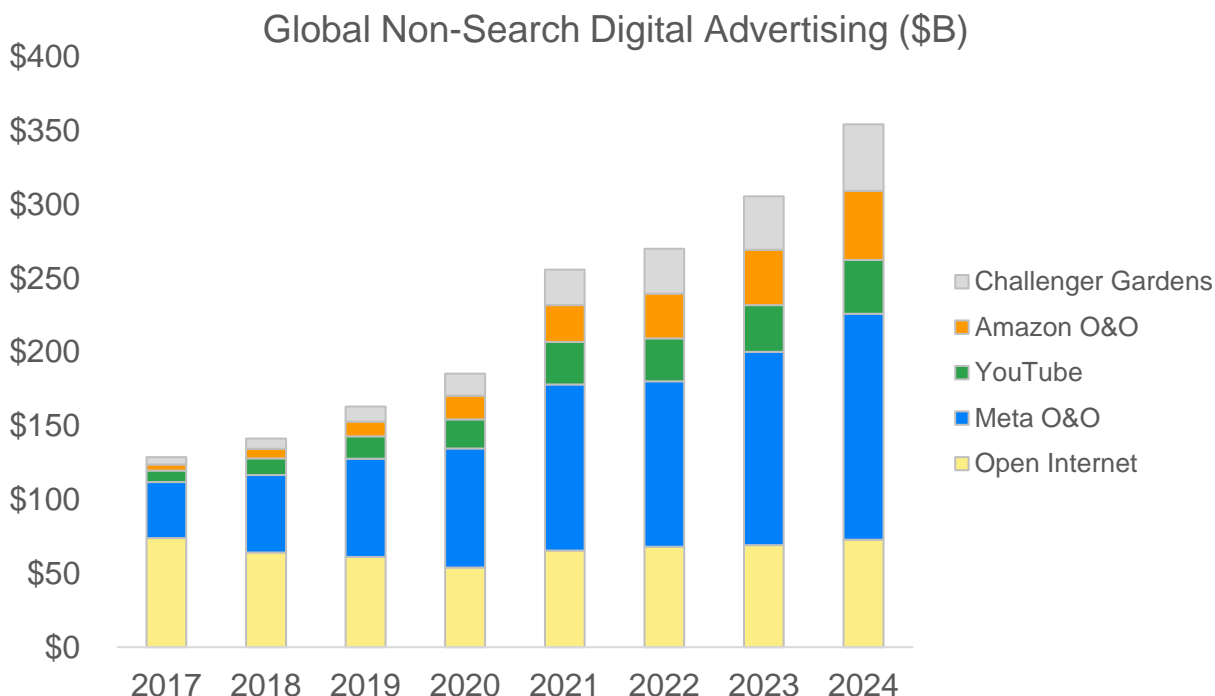
That the open internet is growing at all is notable because the two largest walled gardens – Google and Meta – are decreasing the

Demand Concentration

ad spend they deploy to open internet media companies. From 2017 through 2021, DSPs and ad networks operated by the walled gardens surged as a share of open internet ad spend. Google Ads (formerly AdWords), Google DV360, Meta Audience Network, and Amazon DSP grew from 28% of open internet demand in 2017 to 63% of open internet demand in 2021. And while Amazon DSP continues to grow, both Google and Meta deployed fewer dollars to the open internet in 2023 than they did in 2022. The total ad spend controlled by Google and Meta is growing, but these platforms are allocating ad budgets to O&O supply in favor of the open internet.

Mix Of Open Internet Gross Ad Spend

Legend:
- Reservations
- All Other Buy-Side Platforms
- Criteo
- The Trade Desk
- Amazon DSP
- Meta Audience Network
- Google DV360
- Google Ads

X-axis: 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024
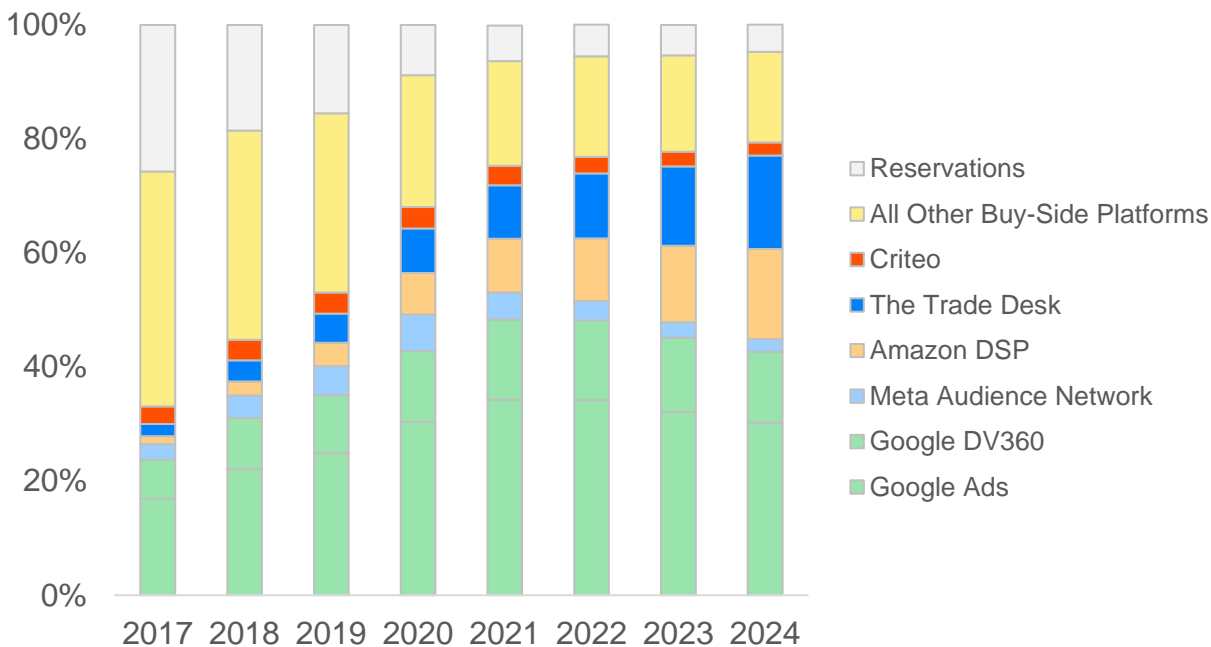
Demand Concentration

Still, the trend toward demand concentration continues. Six companies – Google, The Trade Desk, Amazon, LinkedIn, Criteo, and Meta will control 82% of all open internet investments in 2024:

Estimated 2024 Open Internet Gross Ad Spend

Company	Spend
Google (Google Ads & DV360) — Google Ads / DV360	$31.1
theTradeDesk	$11.9
amazon (Amazon DSP)	$11.5
LinkedIn (LinkedIn Audience Network)	$1.7
CRITEO	$1.7
Meta (Meta Audience Network)	$1.6
All Other DSPs and Ad Networks	$9.9
Reservations	$3.5
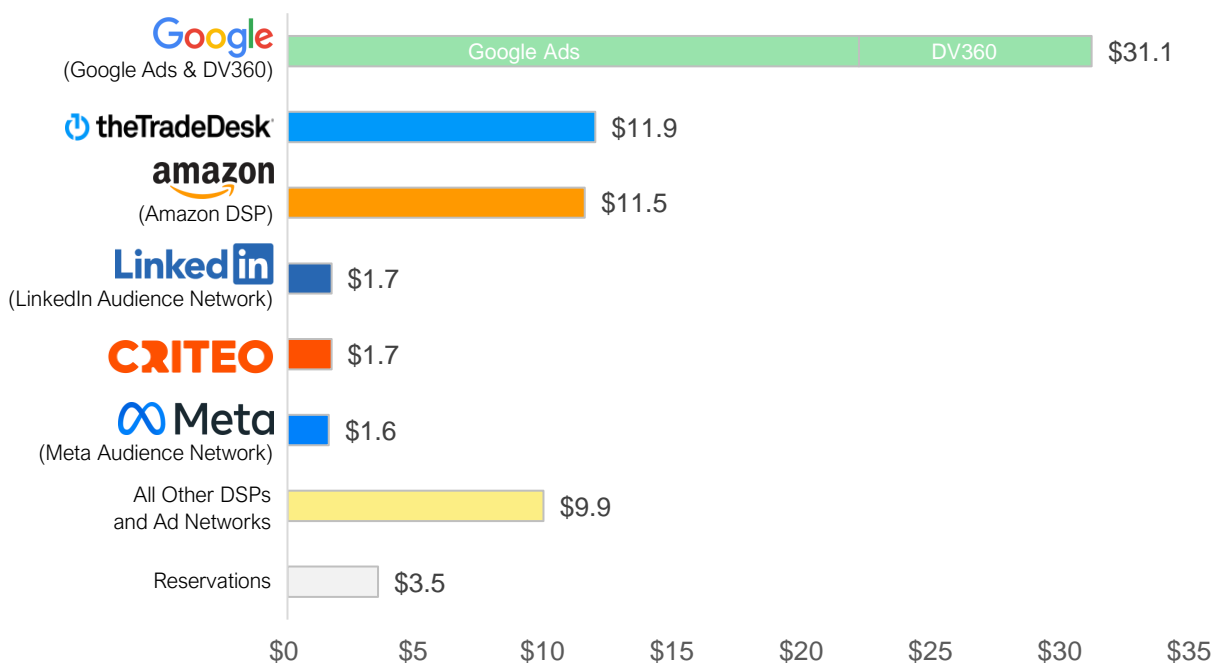
Buyers rationally prefer to work with scaled bidding systems that have the resources to make large fixed cost investments in infrastructure, product capabilities, and customer service. And that means demand naturally accrues to a small number of large DSPs and ad networks. That also means the "real" advertising auction happens within each bidding platform. For each RTB

Demand Concentration

auction, an SSP might receive one bid from The Trade Desk, one from Amazon, and one from Google. But behind each of those DSPs are tens of thousands (in the case of The Trade Desk), hundreds of thousands (in the case of Amazon), or millions (in the case of Google) of advertisers.
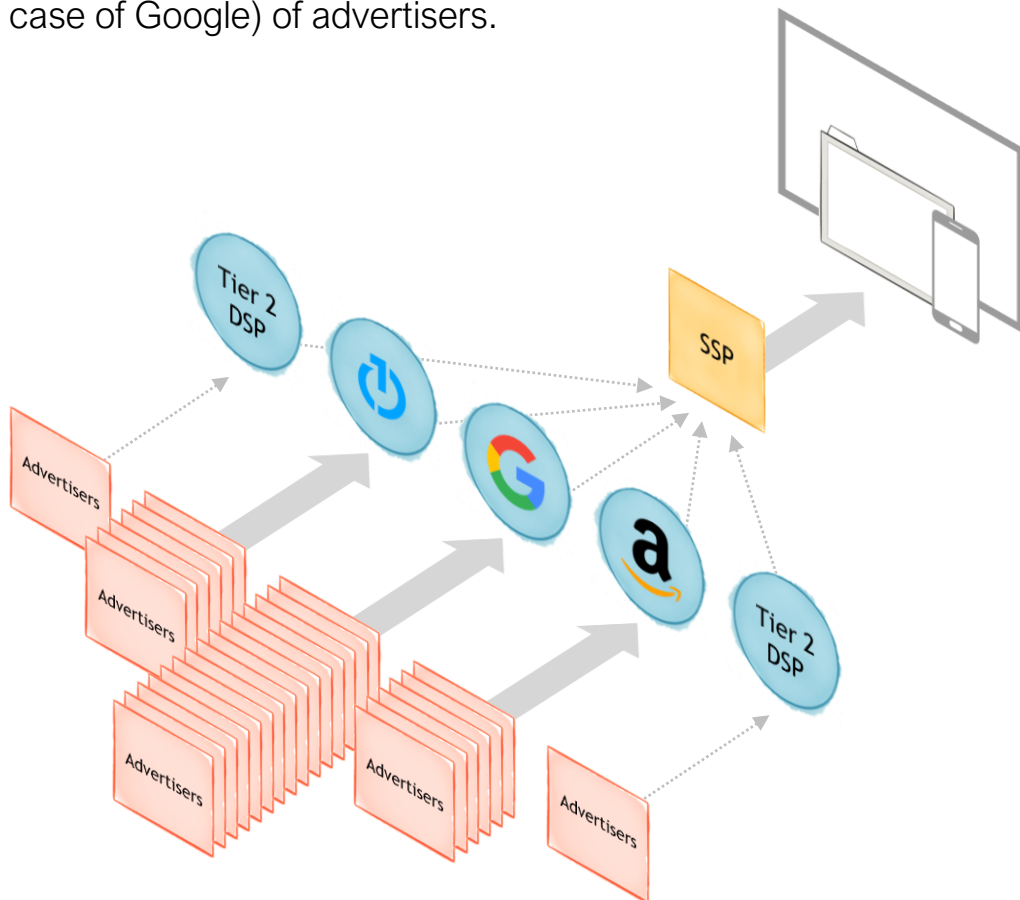
Publisher auction density is thin because publishers are selling their inventory to a handful of scaled DSPs and ad networks, not to a vast landscape of advertisers.

Bidstream Congestion

Open internet publishers are financially incentivized to conduct multiple concurrent auctions for each available impression, creating a crowded bidstream that is aggressively filtered by ad tech platforms. The great majority of auctions are never made available to DSP buyers, undermining the liquidity promise of programmatic advertising.

In response, marketers are shifting budgets toward DSPs and ad networks that are allocating limited infrastructure resources toward high efficiency supply chains – either publisher-direct integrations or "fat pipe" SSP integrations.

Bidstream Congestion

Counterintuitively, buyer decisions to concentrate investments with a small number of scaled DSPs directly contributes to publisher decisions to fragment auctions across a large number of sub-scale SSPs. The best way for publishers to overcome the internal auctions of each DSP and build a fuller understanding of the demand landscape is to create auction duplication – sending many requests and receiving many responses from each of the major bidders.
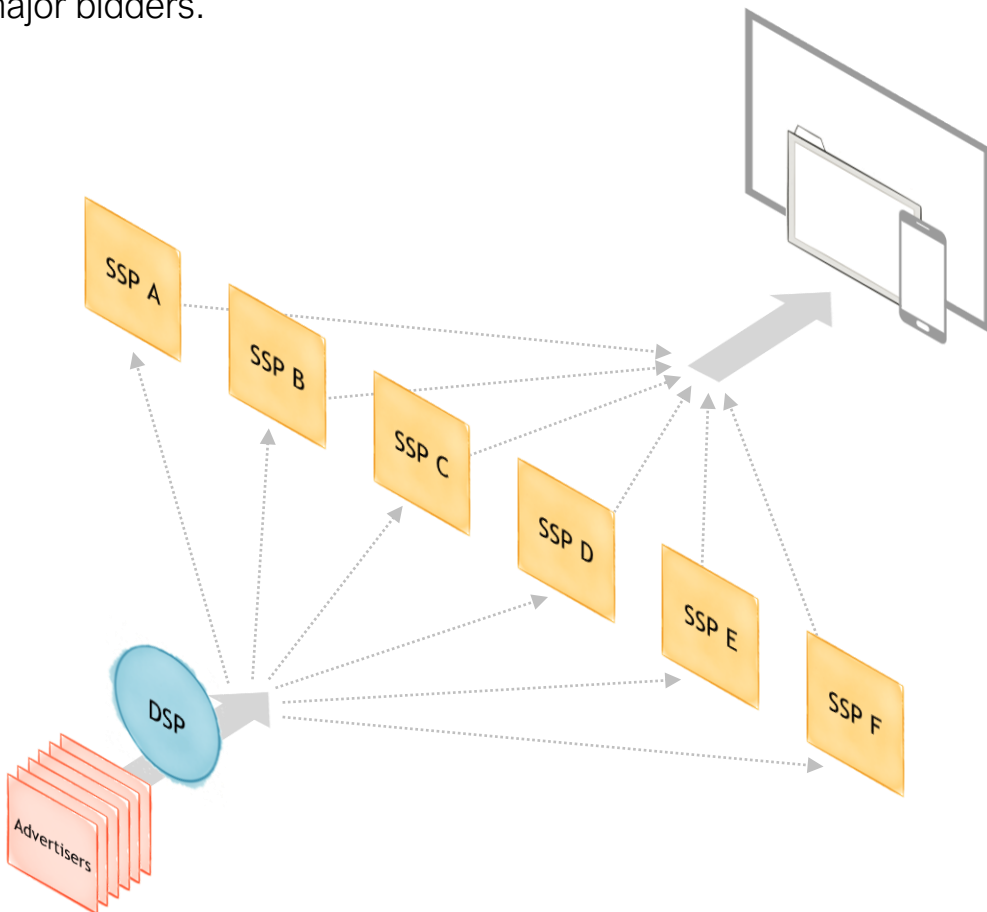
Bidstream Congestion

Auction duplication is now the norm. The average ads.txt file has over 450 authorized supply paths, tripling in size since 2020. Those 450 ads.txt lines are the result of 27 direct SSP partnerships, 14 of which are authorized to initiate resold auctions through downstream SSPs.

Average Number Of Authorized Supply Paths
Among The Top 10,000 RTB-Traded Websites, Mobile Apps, and CTV Apps
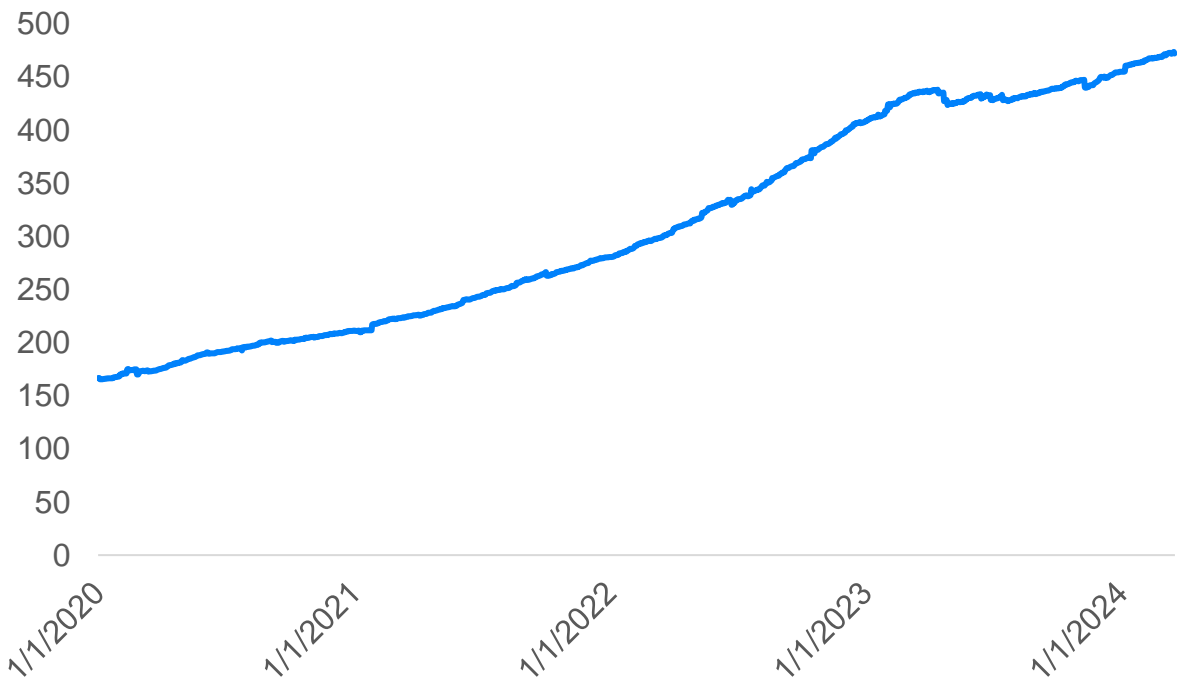
Volume bias is the tendency of DSPs to submit more bids to publishers that initiate more auctions, even if those auctions are duplicate opportunities to buy a single impression, and we've

Bidstream Congestion

been discussing volume bias in our research since 2020[8]. In short, publishers that partner with many SSPs and trigger multiple concurrent auctions through each SSP are overrepresented in the bidstream, capture more DSP bids, have richer auction density, and therefore make more money.

This line of logic is accurate, but it incorrectly suggests that the bidstream is elastic and that more sell-side auctions results in more bid requests being processed by DSPs. But that's a bad assumption because every DSP now operates at fixed capacity to contain costs. Even DV360 now imposes caps on the number of bid requests its SSP partners can issue.

No matter how many auctions publishers initiate, DSPs listen to the same number of bid requests.

This fundamentally changes the dynamics of auction duplication. Based on ongoing discussions with sell-side ad tech platforms, we estimate that an unconstrained DSP would process approximately 30 million QPS ("queries per second" or bid requests per second). But the typical DSP currently operates at 2-5 million QPS. That means 9 of every 10 bid requests are not made available to the average DSP.

8: https://jouncemedia.com/research-portal/monthly-spo-reports-blog/2021/1/13/november-2020

Bidstream Congestion

The result is a crowded supply chain in which each publisher is competing with its peers to be represented in the bidstream:
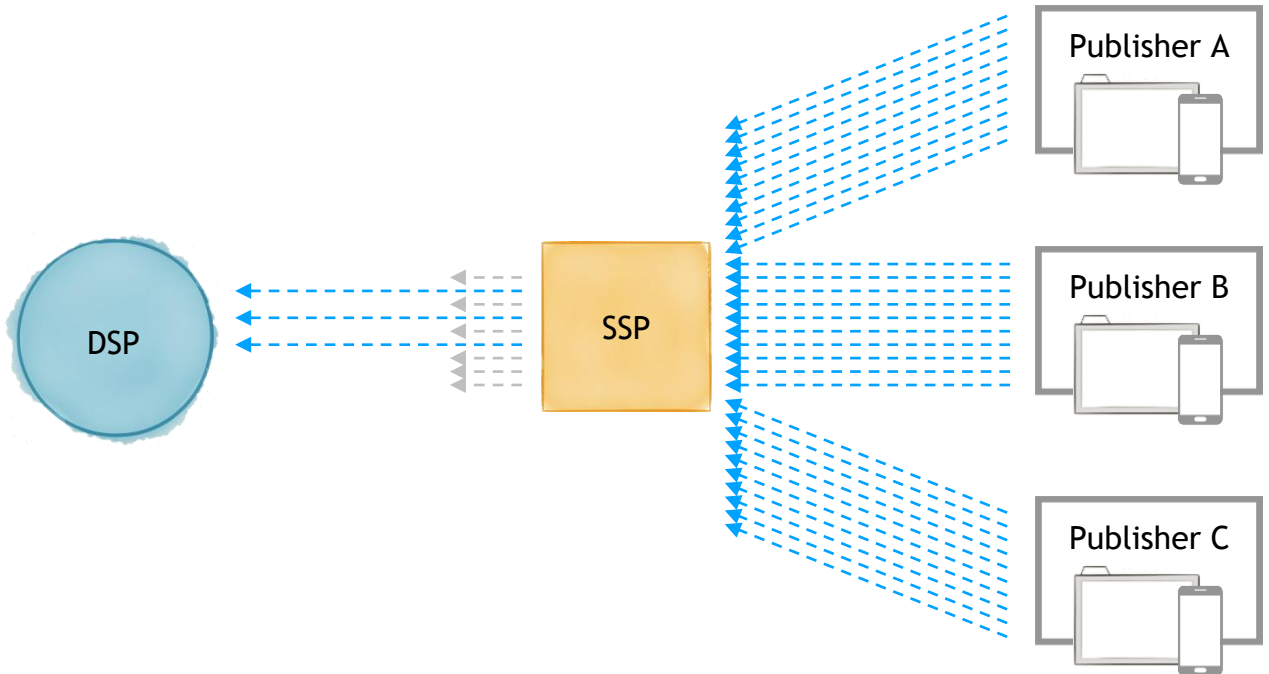
Publishers are sending more requests to their SSP partners, but a growing share of those requests are never received by DSPs. And so volume bias is really more of a crowding out effect – publishers are competing with each other to achieve fair representation (or more ideally overrepresentation) in the bidstream.

Bidstream Congestion

To comply with DSP volume caps, SSPs must filter the bidstream by selecting the impression opportunities that are most valuable to each DSP. Further, the mix of valuable opportunities is different from one DSP to another, and so the availability of supply varies significantly across DSPs. By drawing on outbound bid request data provided to us by a major omni-channel SSP, we can estimate the mix of bid requests available to each DSP.

In some cases, this mix difference is intuitive. Among the top 10 DSPs, the mix of web bid requests vs. app bid requests varies by over 2x:

Mix Of Bid Requests Issued By A Scaled Omni-Channel SSP
To Each Of The Top 10 Global DSPs

	Apps	Websites
DSP 1	72%	28%
DSP 2	68%	32%
DSP 3	55%	45%
DSP 4	47%	53%
DSP 5	47%	53%
DSP 6	39%	61%
DSP 7	36%	64%
DSP 8	35%	65%
DSP 9	34%	66%
DSP 10	31%	69%

2.3x representation delta

Top 10 Global DSPs
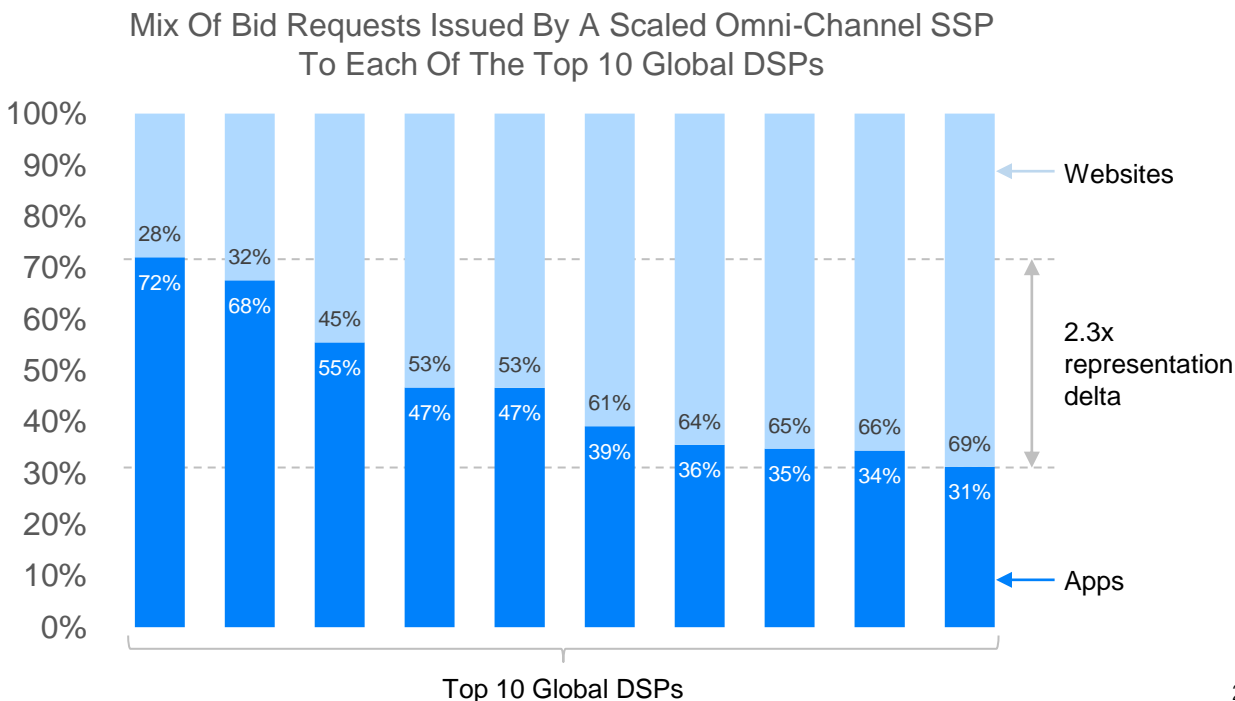
Bidstream Congestion

SSPs feed DSPs what they eat. A DSP that primarily manages web budgets sees more web opportunities. And therefore a mobile-first advertiser is better served by a mobile-first DSP that uses its fixed bidstream capacity to listen to the maximum number of mobile app auctions and would be foolish to choose a web-first DSP. This strikes us as intuitive and healthy.

But the "feed DSPs what they eat" concept extends to every dimension of the bidstream, often in dysfunctional ways. Consider the mix of rebroadcasting (our term for multi-hop reselling) bid requests across the top 10 DSPs:

Mix Of Bid Requests Issued By A Scaled Omni-Channel SSP To Each Of The Top 10 Global DSPs

DSP	Rebroadcasting Paths	Direct Paths
1	28%	72%
2	47%	53%
3	51%	49%
4	57%	43%
5	63%	37%
6	64%	36%
7	68%	32%
8	69%	31%
9	74%	26%
10	79%	22%

3.3x representation delta

Top 10 Global DSPs
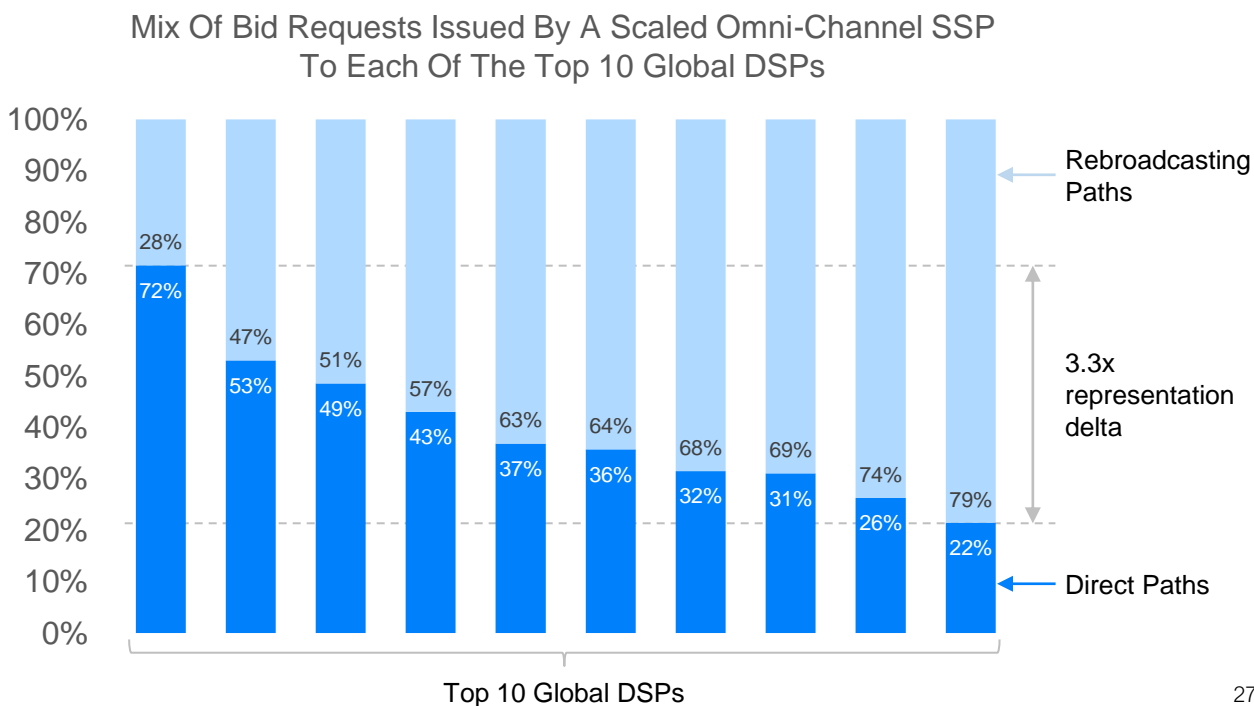
Bidstream Congestion

When DSPs demonstrate demand for resold auctions, SSPs send more resold bid requests. And when DSPs demonstrate a preference for direct supply chains, DSPs send more direct bid requests. The result is that publishers with a direct-only monetization stack are highly overrepresented in some DSPs and highly underrepresented in other DSPs.

Similarly, DSPs that demonstrate demand for MFA supply receive more MFA bid requests:

Mix Of Bid Requests Issued By A Scaled Omni-Channel SSP To Each Of The Top 10 Global DSPs

DSP	Non-MFA Publishers	MFA Publishers
1	76%	24%
2	76%	24%
3	80%	20%
4	81%	19%
5	83%	17%
6	88%	12%
7	92%	8%
8	93%	7%
9	95%	5%
10	97%	3%

8.0x representation delta

Top 10 Global DSPs
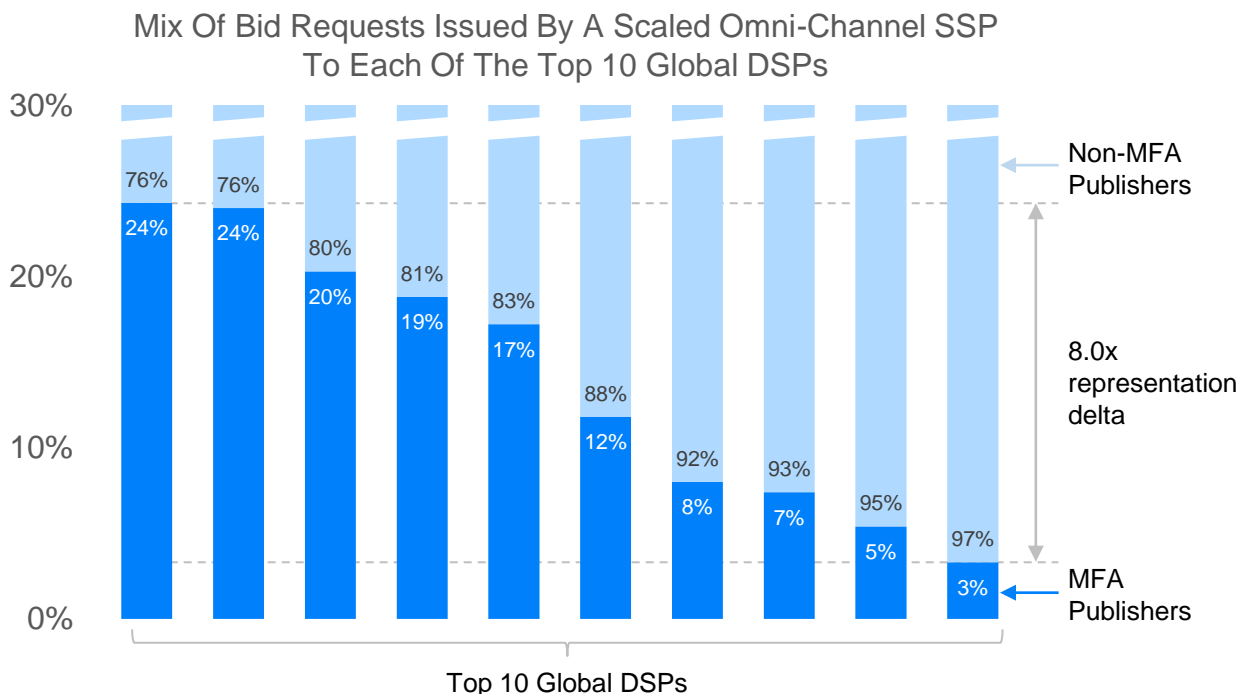
That 8x representation delta is important for both publishers and marketers. Non-MFA publishers occupy 97% of the bidstream in

Bidstream Congestion

some DSPs and just 76% of the bidstream in other DSPs. It's simply harder for a premium publisher to sell its supply to a buyer in a DSP where the bidstream is clogged with MFA supply. Similarly, buyers that want to avoid MFA supply have a harder time accessing premium publishers through a DSP where 1 of every 4 bid requests leads to an MFA auction.

Bidstream representation is a critical consideration for every open internet media company because the availability of each publisher's supply varies greatly across the largest DSPs. There is no media company that appears to be a net winner or a net loser, but each publisher is either overrepresented or underrepresented in each DSP, and that hurts market liquidity.

The illustration we used at the beginning of this section showed a DSP listening to bid requests from 6 SSPs. The more typical DSP listens to bid requests from 25-50 SSPs and constricts each of those integrations to a modest volume. A DSP that operates at 3 million QPS might accept an average of 100,000 QPS from 30 SSPs. These skinny pipes can't serve diverse needs. If the largest buyers in a DSP focus their investments on banner supply, it is very hard for a small buyer in that DSP to access video supply. If the largest buyers in a DSP focus their investments on US audiences, it is very hard for a small buyer in that DSP to access German audiences. And so on for every other dimension of supply.

Bidstream Congestion

The solution to this problem is fat pipes. It would be far better for our hypothetical DSP to accept 1.5 million QPS from 2 SSPs than to accept 100,000 QPS from 30 SSPs.
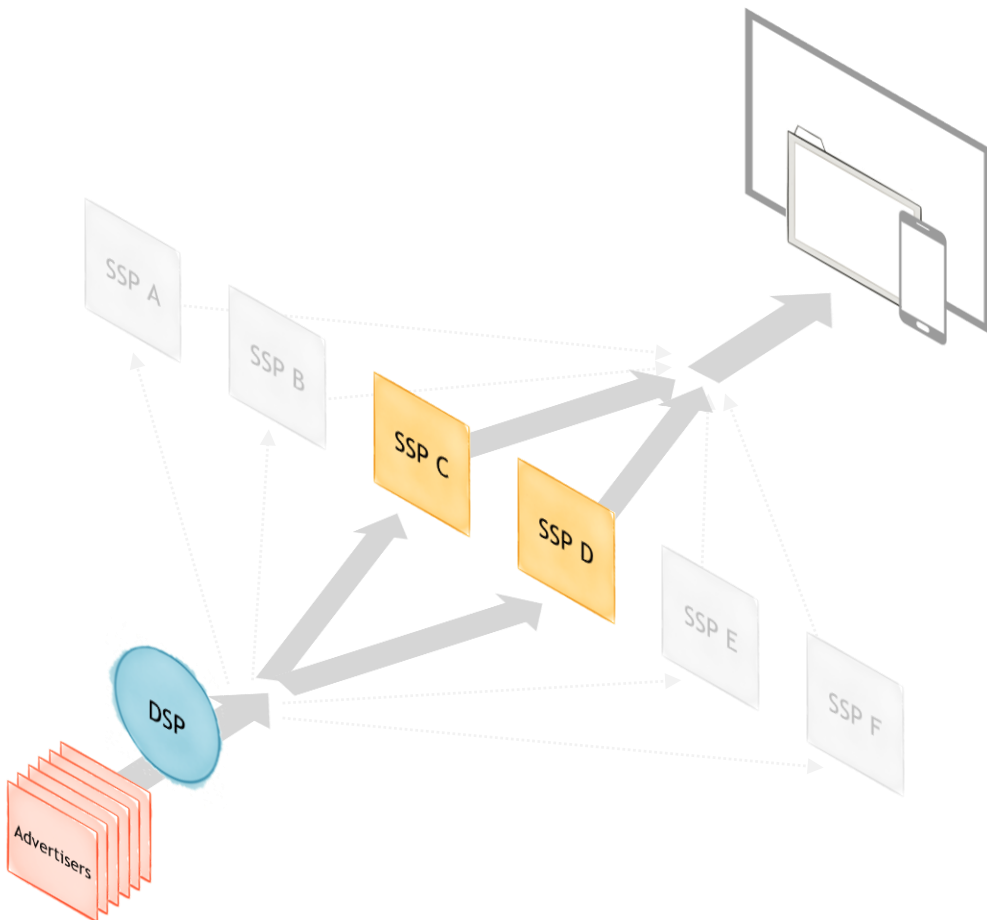
Entirely disabling SSP integrations is a political non-starter for most DSPs, but aggressive QPS allocations are very much on the table. Fat pipes are critical for DSPs to serve diverse buyer needs,

Bidstream Congestion

and that means there are only three viable long term ways for DSPs operate:

Full Bidstream	Market leaders like DV360 and The Trade Desk have the scale necessary to warrant giant fixed cost investments in accepting fat pipe supply from dozens of SSPs. Both of these platforms do currently limit the volume of supply they accept from SSPs, but these caps are so high that the skinny pipe risks do not apply.
Niche Focus	SSP traffic shaping naturally serves niche DSPs the opportunities their customers need to achieve near-complete access to small cross sections of supply. A DSP with a geographic focus or a media format focus, for example, might be able to accept near-100% of the relevant bidstream and dominate a sub-sector of advertiser demand.
Bidstream Deduplication	Sub-scale DSPs that aim to serve a diversity of advertisers need to aggressively deduplicate the bidstream. At a minimum, every DSP that operates at less than 10 million QPS needs to limit each SSP to a single path for each publisher. These DSPs additionally need to consider either entirely disabling or aggressively constricting certain SSP integrations, freeing QPS capacity for a small number of fat pipe integrations.

Unless challenger DSPs move toward a fat pipe strategy, they are structurally less effective at serving a diversity of advertisers than their larger competitors, and marketers will continue to further consolidate budgets with market leaders.

Signal Fidelity

Publishers and their SSP partners are not rewarded for providing accurate targeting information to buyers. Instead, the sell-side financial incentive is to take a loose interpretation of industry standards and flirt with misrepresentation.

Faced with the reality that some RTB auctions provide unreliable information, DSPs and their verification partners are building new capabilities to measure signal fidelity and are steering spend toward publishers and SSPs that provide high integrity targeting information.

Signal Fidelity

Auction duplication is the blunt force approach for media sellers to compete in the bidstream crowding game. But as auction duplication becomes table stakes, savvy sellers are shifting their focus to signal optimization – structuring bid requests in a way that is attractive to DSPs and therefore selected by SSPs to be included in the bidstream.

There is a perverse incentive for publishers and their sell-side technology partners to take a liberal interpretation of industry standards and structure auctions in a way that flirts with misrepresentation. RTB sellers are not currently rewarded for providing the most accurate information in each bid request. Instead, sellers are rewarded for describing each ad opportunity in a way that is most attractive to DSPs and is plausibly defensible as accurate. This manifests in at least three ways:

Video Experiences

Through mid-2022, the OpenRTB spec defined in-stream video ads as "video played before, during, or after the streaming content that the user has requested." The spirit of this definition is clear to any reasonable market participant, but the language is sufficiently ambiguous to allow low quality video ad products to be declared as in-stream. The IAB Tech Lab redefined in-stream video in August 2022 to remove any potential ambiguity, and we discussed this redefinition in our September 2022 report[9].

9: https://jouncemedia.com/research-portal/monthly-spo-reports-blog/september-2022

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Floor Prices

The OpenRTB spec currently defines auction floor prices as "the minimum bid for this impression." Inflating that price is a proven yield management technique for publishers that coaxes elevated bids out of DSPs. And publishers and their SSP partners can credibly stand behind a claim that the "minimum bid" for certain impressions is far above the auction's hard floor. We discussed floor price optimization in our February 2024 report[10].

Addressability

The buyer user ID is the most important signal DSPs utilize to inform audience targeting, manage frequency capping, and measure post-impression sales attribution. The OpenRTB spec defines the buyer user ID as the "buyer-specific ID for the user as mapped by the exchange for the buyer." On the web, DSPs expect this mapping process to the be the result of a deterministic cookie sync, but there are alternative mapping approaches that can, for example, allow auctions to carry a targetable user ID even in browsers like Safari that seek to prevent cross-site tracking.

In all three of these cases, publishers and SSPs that modify auction signals are rewarded with a virtuous loop of improved monetization. The first order effect of signal optimization is a combination of higher DSP participation rates and elevated bid

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prices. And the second order effect is outsized representation in the bidstream – SSPs feed DSPs what they eat.

Addressability is the fastest moving and most revenue-critical vector for signal optimization, primarily motivated by fears of Chrome cookie deprecation. Google's Privacy Sandbox is facing severe adoption headwinds, and authentication-based identity solutions will not scale beyond 5-10% of the typical publisher's traffic. Probabilistic user recognition services are widely available from many vendors and do scale to a publisher's entire audience, but most DSPs have not built support to migrate targeting, frequency capping, and attribution to a new identity signal. The pragmatic solution to this problem is to populate the primary buyer user ID value in bid requests with a probabilistic signal.

Cookie 123   IFA 456   IFA 789   [null]   [null]
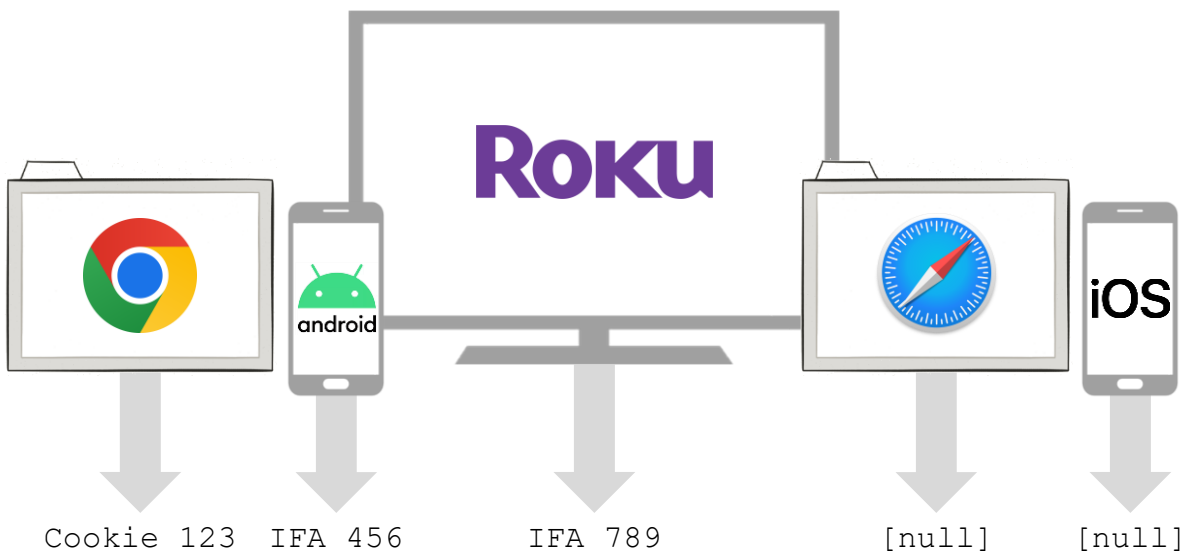
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For each available impression on a Safari browser, probabilistic identity vendors can use the device's IP address and other device-provided signals to identify a candidate set of DSP user IDs. These IDs might be cookies the DSP previously attempted to set in this browser ("recovery") or IDs the DSP associates with other probabilistically-linked consumer devices ("bridging"). In either case, the publisher and its SSP partners have the technical option (if not the industry's explicit endorsement) to populate a "buyer-specific ID for the user as mapped by the exchange" in the bid request. DSPs then automatically (if unintentionally) apply audience targeting, frequency capping, and sales attribution to impressions that would otherwise be unaddressable.

By drawing on impression data provided to us by a major omni-channel DSP, we can estimate publisher adoption of recovery and bridging techniques. For each impression purchased by the DSP, we can compare the buyer user ID declared in the bid request with the cookie ID observed in the browser when serving the impression. We can then quantify the mix of three scenarios:

- **Aligned Impressions:** The buyer user ID declared in the bid request matches the DSP cookie ID stored in the browser

- **Unverifiable Impressions:** The buyer user ID declared in the bid request cannot be verified because there is no DSP cookie ID stored in the browser

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- **Misaligned Impressions:** The buyer user ID declared in the bid request is different from the DSP cookie ID stored in the browser

On Chrome browsers, the ID alignment rate is 95% – DSPs overwhelmingly receive an accurate user targeting signal. But in Safari browsers, the ID alignment rate is just 31%. When a Safari bid request declares a user ID, the DSP can rarely validate the accuracy of that targeting signal because there is no DSP cookie set in the user's browser.

Mix Of Impressions Purchased By A Scaled Omni-Channel DSP

Chrome   Safari

Aligned: ID in the request matches ID in the browser

Unverifiable: No cookie observed in the browser

Misaligned: ID in the request is different from ID in the browser
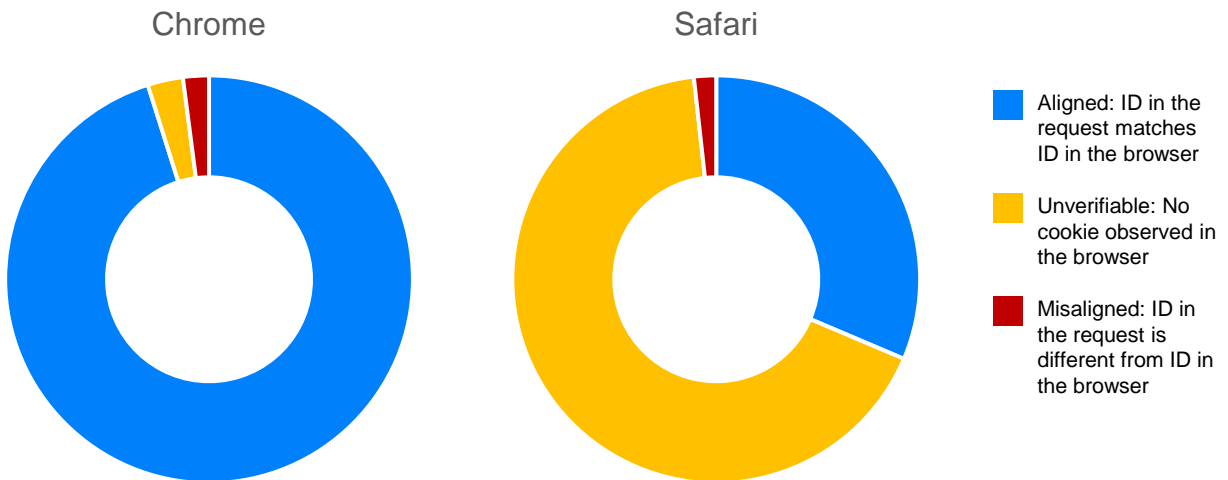
Unverifiable impressions do not necessarily indicate unreliable targeting signals. But unverifiable impressions do indicate that the publisher has made an active business choice to modify auction

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signals. We know this because Safari user ID alignment rates vary greatly across publishers. Publishers that rely on traditional cookie syncing mechanisms to enable addressability in Safari browsers rarely send bid requests with user IDs, but those requests have Chrome-like cookie alignment rates. Publishers that have implemented recovery and bridging techniques have extremely low cookie alignment rates:

Mix Of Safari Impressions Purchased By A Scaled Omni-Channel DSP

Legend:
- Misaligned: ID in the request is different from ID in the browser
- Unverifiable: No cookie observed in the browser
- Aligned: ID in the request matches ID in the browser

Top 25 Safari Portfolios
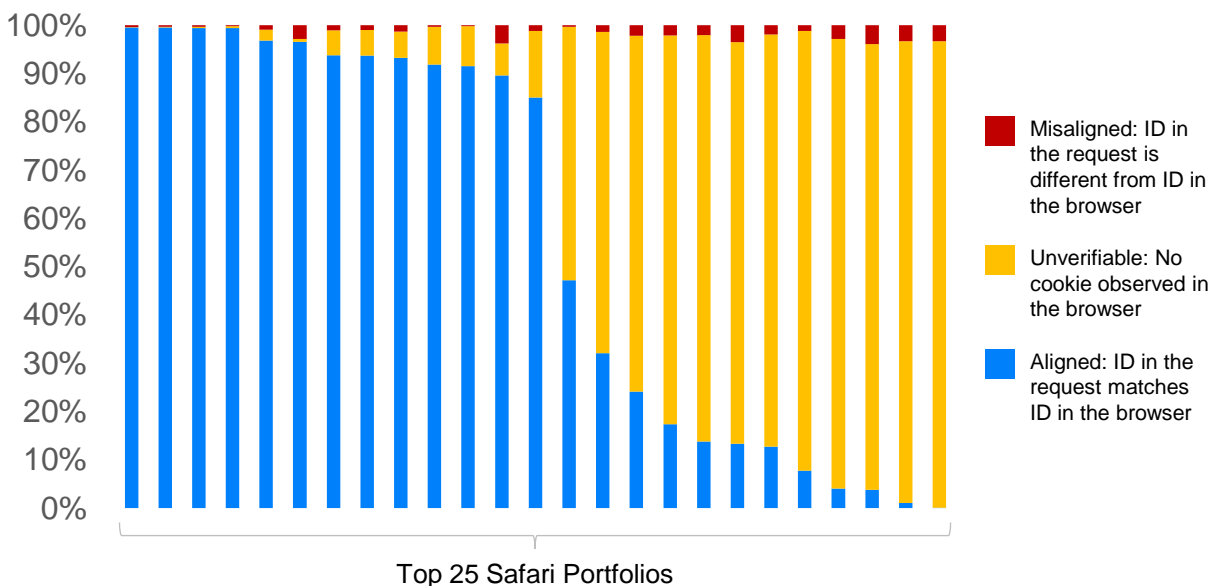
DSPs are quickly learning that user targeting signals are subject to modifications at various steps along the supply chain and require diligent verification. To that end, the IAB Tech Lab is

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actively developing new standards that will require bid requests to disclose the provenance of declared user IDs, and DSPs will need to use these disclosures to identify and separate auctions with trusted signals from auctions with untrusted signals. As these signal validation processes emerge, trusted probabilistic identity services will gain mainstream adoption by every publisher and SSP and will likely create a smooth landing as Chrome fully deprecates third party cookies.

The bigger takeaway is that in the last 18 months, the industry has learned the same lesson three times – the sell side of the open internet has a counter-incentive to prioritize signal fidelity. The self-interest of each media company and each SSP is to structure auctions in a way that applies a loose interpretation of industry standards, and only vague notions of playing the long game contain runaway auction misrepresentation. We've seen this with in-stream video, again with floor prices, and now with user IDs. It seems likely to us that there is a fourth or fifth variation of signal modification that is currently enabling certain publishers and SSPs to capture excess DSP demand and be overrepresented in the bidstream.

Tightening industry standards to address specific implementations of poor signal fidelity is of course necessary, but the structural issue remains. Without a shift in financial incentives, RTB signal fidelity will continue to deteriorate.

The Open Internet In 2024

An honest analysis of the state of the open internet acknowledges both the long term existence of dysfunctional market forces and the more recent emergence of counterbalances to dysfunction.

The 2023 collapse of MFA supply demonstrates that the sell side of the open internet is extremely responsive to buyer behavior. Further, brands and agencies are increasingly aware of the stark differences among leading DSPs and ad networks, and buyers are voting with their wallets. Google's open internet business declined in 2023. The Trade Desk grew by over 20%.

It's not at all clear that the open internet is positioned for growth. But it is very clear that market share will shift in healthy ways. Brands and agencies will continue to reallocate investments toward DSPs and ad networks that earn buyer trust. And those winning platforms will earn buyer trust by steering spend toward high integrity auctions operated by reputable media companies.

Appendix:
Market sizing data

Market Sizing Data
Investment Categories

Gross Ad Spend ($B)									
	2017	2018	2019	2020	2021	2022	2023	2024	CAGR
Digital	$220.7	$244.0	$281.3	$312.2	$423.9	$455.4	$503.2	$566.0	14.4%
TV	$178.4	$179.2	$176.2	$162.2	$171.4	$170.8	$169.4	$176.7	-0.1%
Print	$81.1	$74.0	$67.5	$51.1	$47.6	$44.8	$42.9	$41.7	-9.1%
OOH	$39.4	$40.9	$42.3	$31.1	$35.8	$39.4	$42.1	$45.0	1.9%
Radio	$34.4	$34.9	$34.9	$27.0	$28.5	$29.3	$29.6	$30.6	-1.6%
Total	$554.0	$573.0	$602.2	$583.5	$707.1	$739.7	$787.2	$860.1	6.5%

Share Of Total								
	2017	2018	2019	2020	2021	2022	2023	2024
Digital	39.8%	42.6%	46.7%	53.5%	59.9%	61.6%	63.9%	65.8%
TV	32.2%	31.3%	29.3%	27.8%	24.2%	23.1%	21.5%	20.5%
Print	14.6%	12.9%	11.2%	8.7%	6.7%	6.1%	5.4%	4.9%
OOH	7.1%	7.1%	7.0%	5.3%	5.1%	5.3%	5.4%	5.2%
Radio	6.2%	6.1%	5.8%	4.6%	4.0%	4.0%	3.8%	3.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Market Sizing Data
Digital Advertising Sectors

	Gross Ad Spend ($B)								
	2017	2018	2019	2020	2021	2022	2023	2024	CAGR
Search	$82.8	$92.6	$103.7	$122.5	$152.8	$164.6	$177.4	$190.5	12.6%
Walled Gardens	$54.9	$77.1	$102.0	$131.4	$190.4	$202.0	$236.4	$281.3	26.3%
Open Programmatic	$55.0	$52.3	$51.8	$49.2	$61.5	$64.3	$65.6	$69.5	3.4%
Reservations	$19.0	$11.9	$9.5	$4.8	$4.0	$3.8	$3.7	$3.5	-21.6%
Total	$211.7	$234.0	$267.0	$307.8	$408.7	$434.7	$483.0	$544.8	14.5%

	Share Of Total							
	2017	2018	2019	2020	2021	2022	2023	2024
Search	39.1%	39.6%	38.8%	39.8%	37.4%	37.9%	36.7%	35.0%
Walled Gardens	25.9%	33.0%	38.2%	42.7%	46.6%	46.5%	48.9%	51.6%
Open Programmatic	26.0%	22.4%	19.4%	16.0%	15.0%	14.8%	13.6%	12.8%
Reservations	9.0%	5.1%	3.6%	1.5%	1.0%	0.9%	0.8%	0.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Market Sizing Data
Walled Gardens

	Gross Ad Spend ($B)								
	2017	2018	2019	2020	2021	2022	2023	2024	CAGR
Meta	$37.9	$52.5	$66.5	$80.7	$112.6	$112.1	$131.1	$153.0	22.0%
Amazon	$4.1	$6.5	$10.1	$15.9	$25.0	$30.3	$37.6	$46.8	41.4%
Google	$7.9	$11.2	$15.1	$19.8	$28.8	$29.2	$31.5	$36.5	24.4%
TikTok	$0.5	$0.9	$1.5	$2.6	$4.7	$9.2	$14.3	$20.8	70.6%
LinkedIn	$0.9	$1.2	$1.6	$2.4	$3.6	$4.5	$5.0	$5.4	29.8%
Snap	$0.8	$1.2	$1.7	$2.5	$4.1	$4.6	$4.6	$4.6	27.8%
Pinterest	$0.5	$0.7	$1.1	$1.7	$2.6	$2.8	$3.1	$3.3	32.2%
Walmart	$0.0	$0.1	$0.4	$0.9	$1.9	$2.2	$2.6	$3.2	86.7%
X (Twitter)	$2.1	$2.6	$3.0	$3.2	$4.4	$3.3	$1.6	$1.2	-7.4%
All Other Commerce Media	$0.1	$0.4	$0.8	$1.7	$2.7	$3.8	$4.9	$6.4	73.5%
Total	$54.9	$77.1	$102.0	$131.4	$190.4	$202.0	$236.4	$281.3	26.3%

	Share Of Total							
	2017	2018	2019	2020	2021	2022	2023	2024
Meta	69.1%	68.1%	65.2%	61.4%	59.1%	55.5%	55.5%	54.4%
Amazon	7.5%	8.4%	9.9%	12.1%	13.1%	15.0%	15.9%	16.6%
Google	14.4%	14.5%	14.9%	15.0%	15.2%	14.5%	13.3%	13.0%
TikTok	0.9%	1.1%	1.5%	2.0%	2.5%	4.5%	6.1%	7.4%
LinkedIn	1.6%	1.5%	1.6%	1.8%	1.9%	2.2%	2.1%	1.9%
Snap	1.5%	1.5%	1.7%	1.9%	2.2%	2.3%	1.9%	1.6%
Pinterest	0.9%	0.9%	1.1%	1.3%	1.4%	1.4%	1.3%	1.2%
Walmart	0.1%	0.2%	0.4%	0.7%	1.0%	1.1%	1.1%	1.1%
X (Twitter)	3.8%	3.4%	2.9%	2.4%	2.3%	1.6%	0.7%	0.4%
All Other Commerce Media	0.2%	0.5%	0.8%	1.3%	1.4%	1.9%	2.1%	2.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Market Sizing Data
Open Internet

	Gross Ad Spend ($B)								
	2017	2018	2019	2020	2021	2022	2023	2024	CAGR
Google Ads	$12.5	$14.2	$15.3	$16.4	$22.5	$23.3	$22.2	$22.1	8.5%
Google DV360	$5.1	$5.8	$6.3	$6.7	$9.2	$9.5	$9.1	$9.0	8.5%
Meta Audience Network	$2.0	$2.5	$3.1	$3.4	$3.1	$2.3	$1.9	$1.6	-3.3%
Amazon DSP	$1.0	$1.6	$2.5	$3.9	$6.2	$7.5	$9.3	$11.5	41.4%
The Trade Desk	$1.6	$2.4	$3.1	$4.2	$6.2	$7.7	$9.6	$11.9	33.8%
Criteo	$2.3	$2.3	$2.3	$2.1	$2.3	$2.0	$1.8	$1.7	-4.2%
All Other Buy-Side Platforms	$30.5	$23.6	$19.2	$12.5	$12.1	$12.0	$11.7	$11.6	-12.9%
Reservations	$19.0	$11.9	$9.5	$4.8	$4.0	$3.8	$3.7	$3.5	-21.6%
Total	$74.0	$64.2	$61.3	$54.0	$65.5	$68.1	$69.2	$73.0	-0.2%

	Share Of Total							
	2017	2018	2019	2020	2021	2022	2023	2024
Google Ads	16.9%	22.1%	24.9%	30.4%	34.3%	34.2%	32.1%	30.3%
Google DV360	6.9%	9.0%	10.2%	12.4%	14.1%	14.0%	13.1%	12.4%
Meta Audience Network	2.7%	3.9%	5.1%	6.4%	4.7%	3.4%	2.7%	2.2%
Amazon DSP	1.4%	2.5%	4.1%	7.3%	9.4%	11.0%	13.4%	15.8%
The Trade Desk	2.1%	3.7%	5.1%	7.8%	9.4%	11.4%	13.9%	16.4%
Criteo	3.1%	3.6%	3.7%	3.8%	3.4%	2.9%	2.6%	2.3%
All Other Buy-Side Platforms	41.2%	36.7%	31.4%	23.1%	18.4%	17.6%	16.9%	15.9%
Reservations	25.7%	18.5%	15.5%	8.8%	6.2%	5.6%	5.3%	4.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%