

fraud0.

# Unmasking the shadows

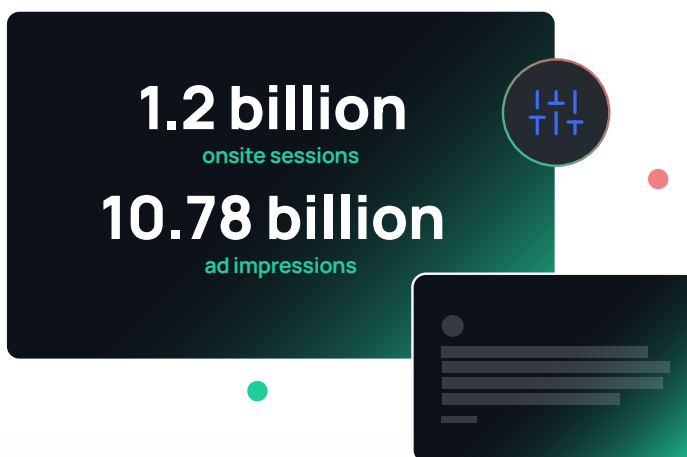
2025



# Executive Summary

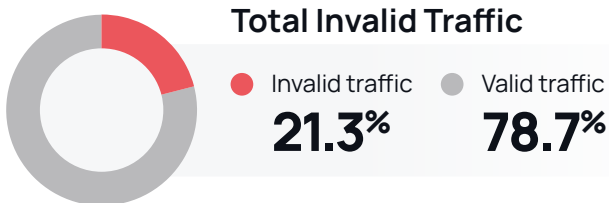
2025 brings new trends, upcoming challenges and shifting priorities, but that doesn't mean the old ones disappear. Some fundamentals like data quality, engaged audiences and marketing efficiency remain just as important today. It's all about finding the right balance between reacting to what's new and staying sharp on what's always been there.

This report sheds light on some of the darker corners of modern marketing, drawing insights from onsite and in-ad data across our enterprise customer base. Between 01.10.2024 and 31.12.2024, we analyzed **1.2 billion onsite sessions** and **10.78 billion ad impressions**. Here are our key insights.



## Onsite Traffic Analysis

The onsite measurement analyzes traffic directly on the website. This is especially crucial for assessing the quality of traffic coming from walled gardens, where direct measurement isn't possible.



### Invalid Traffic by Channel Group

Channel Group	Invalid Traffic
Owned Media & Direct	37.11%
Paid Social	20.64%
Programmatic Display & Retargeting	19.95%
Affiliate & Partner Networks	17.52%
Organic & Earned Media	12.46%
Paid Search	6.95%

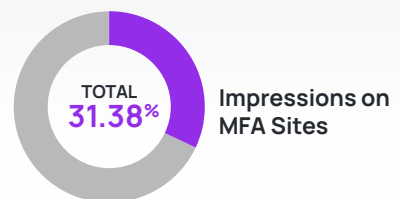
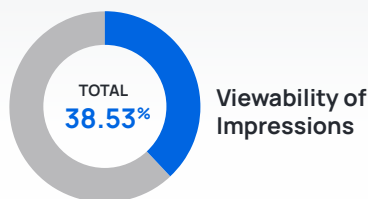
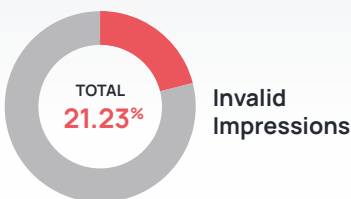
### Returning Bot User by Channel Group

Channel Group	Returning Bot User
Paid Social	31.35%
Paid Search	10.17%
Organic & Earned Media	7.90%
Programmatic Display & Retargeting	6.46%
Affiliate & Partner Networks	5.80%
Owned Media & Direct	3.39%

## In-Ad Measurement Insights

In-ad measurement analyzes what actually happens to your ad in programmatic advertising. It measures where it was displayed, whether it was viewable and if it was affected by fraud. This is key to understanding impression quality beyond surface metrics.

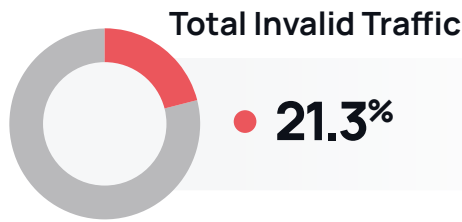
**Note:** These metrics heavily depend on the campaign settings.



# Onsite Traffic Analysis

Between October 1, 2024 and December 31, 2024, **we analyzed 1.2 billion sessions** across the websites of our customers. The onsite measurement allows us to assess traffic quality directly at the destination, beyond what platforms and walled gardens reveal.

We examined key indicators like overall invalid traffic, traffic by channel group, invalid user rates, invalid conversions, returning bot users and more.



**Over a fifth of all traffic to company websites is invalid.** Important to note: search engine crawlers are excluded. This applies to all onsite data.

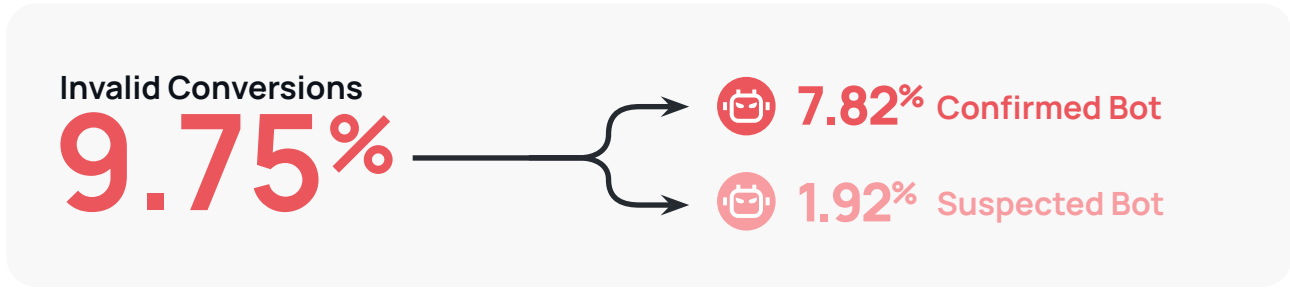


When focusing on the users behind the invalid sessions, the invalid share increases to about one third.

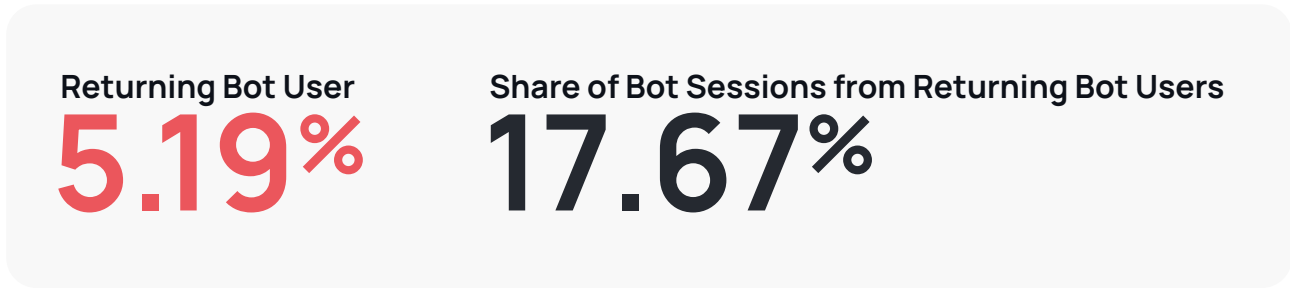
## Invalid Traffic by Channel Group

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Invalid traffic originates from all digital marketing channels. To better understand the impact on your channel strategy, we've organized them into key groups. This allows you to benchmark the level of impact on your own marketing mix.



**Invalid traffic doesn't stop at visits.** It also leads to invalid conversions. Across all measured sessions, nearly 10 percent of all conversions were flagged as invalid. This includes purchases, form fills and other key actions. These are further broken down into confirmed bots and suspected bots to give you deeper insight into conversion quality.



Some bot users do not just show up once. They come back. In our analysis, **5.19 percent of bot users returned within a quarter and were responsible for 17.67 percent of all bot sessions across channels.** This excludes search engine crawlers and self-declared bots and applies to all figures related to returning bot users. This highlights the outsized impact of repeat bots on overall traffic volumes.

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The **share of returning bot users varies by channel**, revealing where repeat bot activity is most concentrated.

### Share of Bot Sessions from Returning Bot Users by Channel Group


Channel Group	Share of Bot Sessions from Returning Bot Users
Paid Social	71.58%
Paid Search	26.23%
Organic & Earned Media	22.52%
Programmatic Display & Retargeting	20.56%
Affiliate & Partner Networks	16.53%
Owned Media & Direct	12.69%

As shown before, each channel group shows a different level of returning bot activity. This also holds true for the share of bot sessions generated by those returning users, measured against the total number of bot sessions per channel.


Average Page Views by Invalid Users **1.2**



On average, invalid users view 1.2 pages. While some invalid users browse deeper, many drop off right after the landing page.



**Average Session Duration by Invalid Users**  
● **26.02** seconds



**Average Session Duration Total**  
● **181.25** seconds

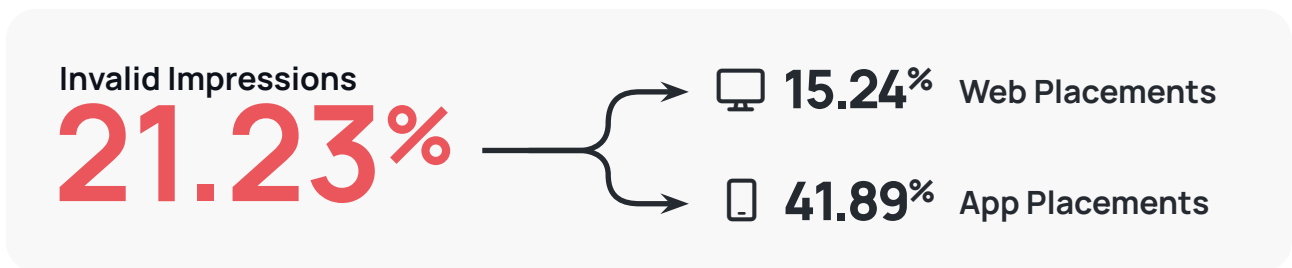
Invalid users stay on the website for just 26 seconds on average, while the overall average across all users is 181 seconds. This shows that **real users are often more engaged than expected**, but their behavior is diluted by short, invalid visits. It underlines the importance of cleaning your metrics to uncover true user behavior.

# In-Ad Measurement Insights

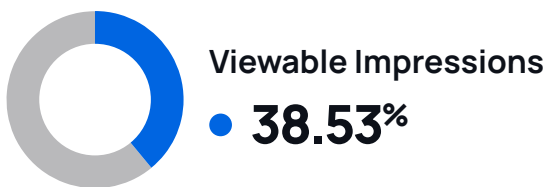
We analyzed 10.78 billion ad impressions collected between October 1, 2024 and December 31, 2024 across programmatic advertisement. Every impression was measured using our post-bid JavaScript technology, capturing exactly what happened to the ad, from how often it was viewable to whether it ended up on MFA (Made for Advertising) sites or was seen by bots.

We looked at invalid impressions, viewability, fraud techniques or technical implementation issues. The data is also broken down by web and app placements to highlight differences in quality and risk across environments.

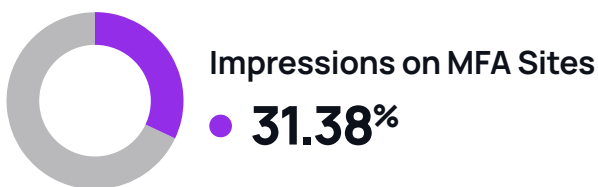
These insights help marketers understand the true quality of their ad placements and make more informed decisions to protect performance and budget.



A fifth of impressions were invalid, leading to major inefficiencies in ad spend. The share of invalid impressions differs significantly by environment: 15 percent for web placements and 41 percent for app placements.



Viewability across all measured impressions was just over 38 percent, meaning that **more than 60 percent of ads were never actually viewable** according to industry measurement standards.



31 percent of impressions appeared on MFA sites. While not always fraudulent or bad, this is a measurement of placements typically found in **ad-heavy environments with low user value**.

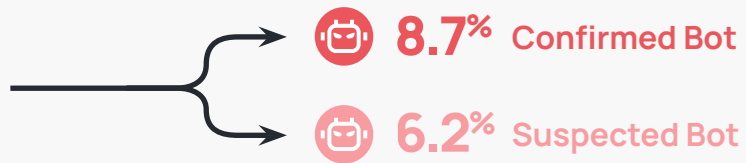
Ad Fraud and/or Implementation Mishaps

11.6%

11.6 percent of impressions were classified as fraudulent based on signals such as pixel stuffing, ad stacking and domain spoofing, although they could also result from implementation mishaps rather than deliberate intent.

Ad Impression from Bots

14.9%



A total of 14.9 percent of ad impressions were delivered to bots, 8.7 percent confirmed and 6.2 percent suspected bots. This breakdown highlights the extent of non-human delivery within ad placements.

# From Insights to Action

You now have a clearer picture of what's really happening, on your site and inside your ad placements. From invalid traffic and bots to viewability issues and questionable inventory, the data in this report helps uncover what often stays hidden. **The next step is turning these insights into action.** Whether it's cleaning your analytics, tightening your supply path or reevaluating performance metrics, every decision you make with better data moves your marketing in the right direction. Basic adjustments can often be made directly on your side, but we are always here and happy to support you wherever deeper analysis or hands-on help is needed.

**Looking ahead, one of the most significant shifts can be the rise of AI agents,** software that acts autonomously on behalf of real users. These agents will browse, compare, click and even convert, introducing a new layer of complexity to digital measurement. Unlike traditional bots, AI agents are not malicious. In many cases, they will be legitimate participants in the customer journey. As they become more common, marketers and measurement systems will need to distinguish between harmful automation and helpful intent and possibly rethink what qualifies as a real conversion.



## Disclaimer

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