

Tracking challenges in AI browsers

What marketers and analysts
should know

Speaker



Dan Murovtsev

Product Manager at **Stape**

~ 1000 server-side tracking setups

Q&A session



Alex Held

Data Tracking Expert
at **Stape**



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Data Tracking Expert
at **Stape**



What you`ll get after the webinar:



Webinar recording



Written guides and links to the
resources & presentation

3 best questions will win
exclusive Stape T-shirts!



Session outline

👉 **AI browsers overview and tracking challenges**

- Understand how AI browsers are changing the rules of measurement through ad blocking, cookie limitations, and consent disruption.

👉 **Recognizing AI traffic**

- Learn how to spot AI-driven traffic and understand the current limits of detection in analytics platforms.

👉 **Universal Commerce Protocol**

- Explore how UCP could reshape digital measurement as AI agents become part of the customer journey.

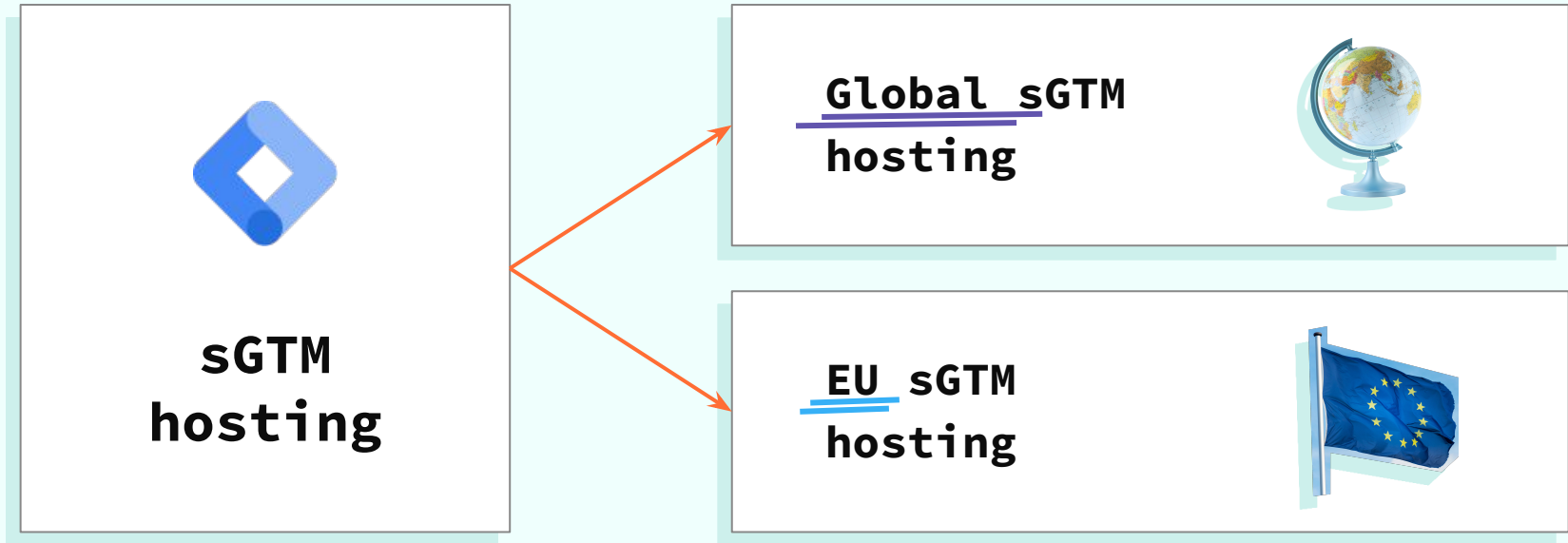
👉 **Live demo**

👉 **Q&A session**

Stape is server-side tracking

Boost data quality and marketing ROI with
all-in-one platform designed to simplify
server-side tracking

A full suite of server-side tracking solutions





Pioneers in the space, setting industry standards since 2021

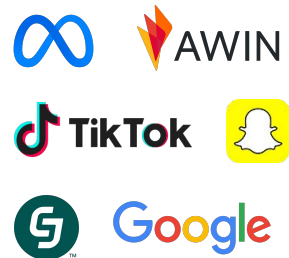
200,000+

clients



750+

partners



100+

employees





Reliable & secure infrastructure



15,000,000,000+
requests daily

25
server locations



Stape is truly a one-stop-shop

infrastructure

Managed infrastructure

Set up hosting, and focus on data while we handle the rest

Power-ups

Customize your container with performance-boosting tools

GTM templates

Access the best from the largest GTM Template Gallery contributor

product

Enablement tools

Tracking Checker, Setup Assistant, Stape Analytics at your service

Platform integrations

Integrate server-side tracking with CMS and CRM platforms

Enterprise features

Tailored features for secure, scalable tracking. SSO and HIPAA included

support

24/7 human support

Dedicated implementation team and a Personal Manager

Partnership program

Enjoy benefits, commissions, and growth support

Knowledge sharing

Insights through blogs, community, webinars, and detailed documentation



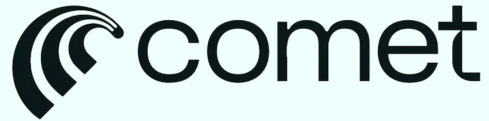
AI browsers overview



Lots of new browsers




Lots of new browsers





*You guuys, I'm
AI too!*

The term “Browser Wars” surfaced again in 2025


 spyglass.org
<https://spyglass.org> › ai-browser-wars

Begun, the AI Browser Wars Have - Spyglass
 25 Jun 2025 — What you can do right now is have an AI chatbot deeply integrated into your browsing experience. It's right there on the righthand side of every ... [Read more](#)





AI Overview


The AI browser wars are a new tech battle for internet control, pitting AI-native browsers like OpenAI's Atlas and Perplexity's Comet against established players like Google Chrome (with Gemini/AI Mode) and Microsoft Edge (with Copilot) by using autonomous AI agents to perform tasks, manage data, and act on user's behalf, shifting focus from speed to personalized, proactive web interaction and raising major


Platformer
<https://www.platformer.news> › ai-web-browsers-openai-...

The AI browser wars are about to begin
 29 May 2025 — Artificial intelligence is already writing an obituary for the internet as we know it. So why is everyone building new web browsers?



 YouTube · Waveform Clips
 291,9K+ views · 2 months ago

The Browser Wars are SO BACK!


 Marques, Andrew, and David talk about including the new ChatGPT Atlas browser from OpenAI!


 Fortune
<https://fortune.com> › 2025/10/22 › ai-browser-wars-age...

Browser wars are back with a vengeance—and OpenAI ...
 22 Oct 2025 — The early days of the internet saw intense competition between graphical web browsers. Netscape Navigator faced off against Microsoft's ... [Read more](#)

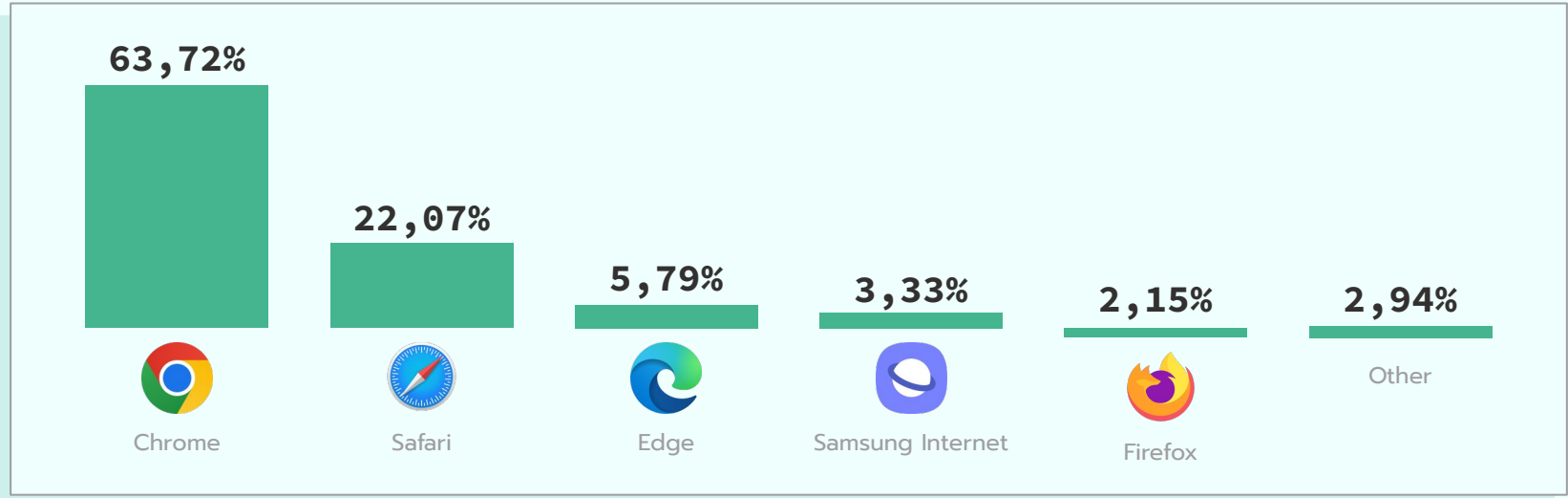

 LinkedIn · John Shaw
 20+ reactions · 6 months ago

The Browser Wars Are Back — And This Time, AI Is ...
 The explosion of generative AI is the catalyst for a third browser war. This is not competition over speed, rendering engines, or tab management ... [Read more](#)



Market share unknown

Any AI browser is still **below 1%** of global usage, and even together they are very small compared to Chrome, Safari, Edge, and Firefox.



What makes AI browsers different and how it may affect you data

- Tracking restrictions enabled by default
- Limited or no cookie consent flows
- Script blocking





Privacy in Dia, you're in control

Any content data you choose to share with Dia—like what you visit or questions you ask—**will never be tied to your account and will be deleted after 30 days.**

- Block third-party ads and trackers**
You won't see them. And they won't see you.
- Help improve Dia by sharing content data**
[Learn more](#) about our commitment to privacy.

Advanced Ad Block Settings

Block common components found across the web by using additional rules and filters. [Learn more](#)

Ad Blockers

- EasyList
- uBlock - Ads
- uBlock - Unbreak

Trackers

- EasyPrivacy
- uBlock - Privacy

Cookie Banners

...

Done

Settings

Privacy Profiles Memory **PRO** Shortcuts Advanced

- Blocking:
- Block ads
 - Block trackers
 - Block cookie banners

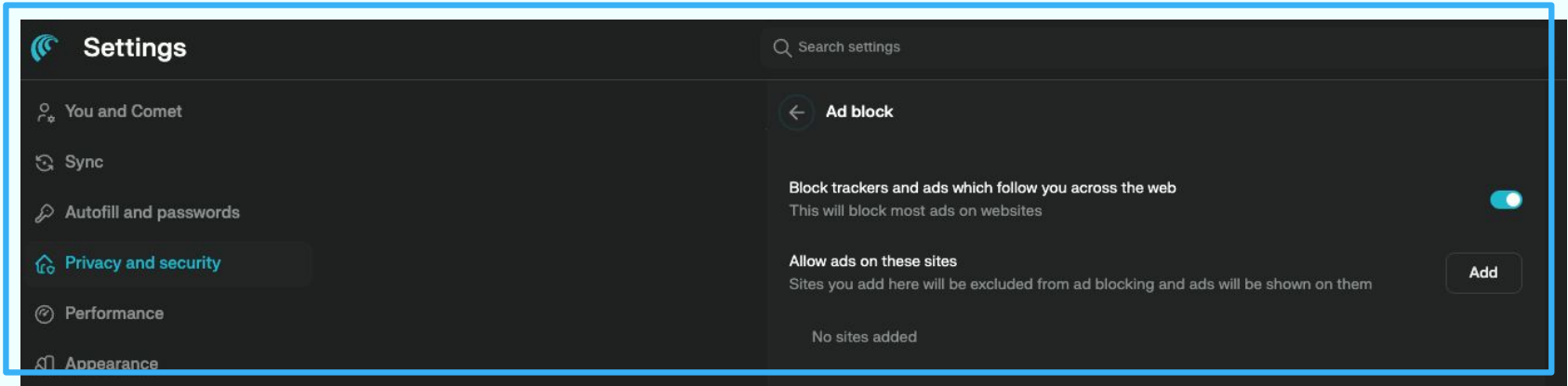
Advanced Settings

- Data:
- Share content data to help improve Dia.
This data will not be tied to your profile.


1. Third-party trackers blocked by default
2. Third-party trackers seem to include cookie banners
3. The wide-spread EasyList/EasyPrivacy are main heuristics for the blocking

| Name | Path | Status | Domain | Type |
|---|-------------------------------------|--|------------------------|----------|
| storefront-banner.js | /cdn/shopifycloud/privacy-bann... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | script |
| produce_batch | /unstable/produce_batch | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | monorail-edge.shop... | ping |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | ping |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | xhr |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | ping |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | xhr |
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| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | xhr |
| web-pixel-shopify-app-pixel@0450.js | /web-pixels/strict/app/web-pixel... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | |
| gtm.js?id=GTM-TFDL3KQV | /gtm.js | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | cornucopia.stape.ev... | script |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | ping |
| produce_batch | /.well-known/shopify/monorail/u... | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.stape.events | xhr |
| widget.js?locale=en&cc_cookie_domain=shop.st... | /widget.js | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | consent.stape.io | script |
| script_pixel?shop_id=68631527596 | /widget/script_pixel | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | sp.stapecdn.com | fetch |
| hop_analytics_trace_id=a2d2745d-1f66-442f-9... | /pay/hop | (failed) net::ERR_BLOCKED_BY_CONTENT_BLOCKER | shop.app | document |







1. gtm.js blocked
2. Cookie banner blocked
3. There's also some "collateral" blocking here and there



Built-in adblock, no explicit information

| Name | X | Headers | Payload | Preview | Response | Initiator | Timing | |
|--|---|---------|---------|---------|---|-----------|--------|--|
|  gtm.js?id=GTM-5NKJRPDR | | | | | <pre>1 /***** 2 3 uBlock Origin - a browser extension to block requests. 4 Copyright (C) 2019-present Raymond Hill 5 6 This program is free software: you can redistribute it and/or modify 7 it under the terms of the GNU General Public License as published by 8 the Free Software Foundation, either version 3 of the License, or 9 (at your option) any later version. 10 11 This program is distributed in the hope that it will be useful, 12 but WITHOUT ANY WARRANTY; without even the implied warranty of 13 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the 14 GNU General Public License for more details. 15 16 You should have received a copy of the GNU General Public License 17 along with this program. If not, see {http://www.gnu.org/licenses/}. 18 19 Home: https://github.com/gorhill/uBlock 20 */ 21 22 (function() { 23 'use strict'; 24 // https://developers.google.com/analytics/devguides/collection/analyticsjs/ 25 const noopfn = function() { 26 ;</pre> | | | |

1. Meet uBlock Origin behind the scenes
2. gtm.js is not exactly blocked but is neutered

| Name | Path | Status | Domain | Type |
|---|---------------------------------------|--------|------------------------------|----------------|
|  gtm.js?id=GTM-5NKJRPDR | /gtm.js | 200 | www.googletagmanager.c... | script |
|  js?id=G-1231245&cx=c>m=4e61m0 | /gtag/js | 200 | www.googletagmanager.c... | script |
|  collect?v=2&tid=G-1231245>m=45je61m0z89220670452...ape.events&_tu=DA&en=pag... | /g/collect | 200 | cornucopia.stape.events | fetch |
|  googleads_conversion_id/?random=2059997349&fst=176...66~115938469~116682876~11... | /pagead/viewthroughconversion/goo... | 302 | googleads.g.doubleclick.n... | gif / Redirect |
|  googleads_conversion_id/?random=2059997349&fst=176...t7kemoAlp0qDaRZhB0-QtWiH... | /pagead/1p-user-list/googleads_con... | 302 | www.google.com | gif / Redirect |
|  googleads_conversion_id/?random=2059997349&fst=176...Alp0qDaRZhB0-QtWiHM5ODQI... | /pagead/1p-user-list/googleads_con... | 200 | www.google.pl | gif |

No built-in settings, no built-in blocking. Chrome parity



Brave



| Name | X | Headers | Payload | Preview | Response | Initiator | Timing | |
|------------------------|---|---------|---------|---------|--|-----------|--------|--|
| gtm.js?id=GTM-5NKJRPDR | | | | | <pre>1 /***** 2 3 uBlock Origin - a browser extension to block requests. 4 Copyright (C) 2019-present Raymond Hill 5 6 This program is free software: you can redistribute it and/or modify 7 it under the terms of the GNU General Public License as published by 8 the Free Software Foundation, either version 3 of the License, or 9 (at your option) any later version. 10 11 This program is distributed in the hope that it will be useful, 12 but WITHOUT ANY WARRANTY; without even the implied warranty of 13 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the 14 GNU General Public License for more details. 15 16 You should have received a copy of the GNU General Public License 17 along with this program. If not, see {http://www.gnu.org/licenses/}. 18 19 Home: https://github.com/gorhill/uBlock 20 */ 21 22 (function() { 23 'use strict'; 24 // https://developers.google.com/analytics/devguides/collection/analyticsjs/ 25 const noopfn = function() { 26 ; </pre> | | | |

1. Meet uBlock Origin behind the scenes
2. gtm.js is not exactly blocked but is neutered

Live demo





| | DIA | Comet | Atlas | Brave |
|--------------------------------|----------|----------|----------|---|
| Trackers blocked | + | + | - | + |
| gtm.js | + | + | - | + |
| gtag.js (and /collect hits) | + | + | - | + |
| Consent banners blocked | + | - | - | + |
| Cookie lifetime * | ≈ Chrome | ≈ Chrome | ≈ Chrome | first-party, non-tracking 7d for JS, 180d for HTTP |

Comparison table

* What cookie differences exist, are obscure and are relevant for AI layers and UI extensions at best

First party and server-side keeps on becoming more and more relevant

Serving scripts from your own domain becomes crucial to even collect user consent, not to mention track any activity.





Recognizing AI traffic



It's all Chromium

Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/144.0.0.0 Safari/537.36





Comparison table

| | User Agent string |
|----------------|---|
| Chrome | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36 |
| Safari | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/26.1 Safari/605.1.15 |
| Firefox | Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:139.0) Gecko/20100101 Firefox/139.0 |
| Brave | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36 |
| Edge | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/143.0.0.0 Safari/537.36 Edg/143.0.0.0 |
| DIA | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36 |
| Comet | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36 |
| Atlas | Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/144.0.0.0 Safari/537.36 |

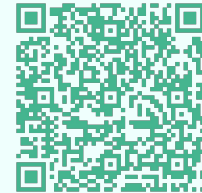
Create a new channel or channel group

The screenshot shows two overlapping forms. The background form is 'Create new channel group' and the foreground form is 'Create new channel'. The 'Create new channel' form has the following fields:

- Channel details**
 - Channel name:
- Channel conditions**
 - Match AT LEAST ONE rule in this group
 - Source:
 - Or:
 - + Add condition group

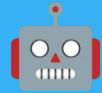
Want to set a channel group for all possible AI agents?

Check this great article from Dana DiTomaso





**What about
non-human events?**



Here's **our toolkit** to identify non-human events



Not really

1. GA4 bot-filtering

Anything that looks like a normal browser session from Google's POV will usually pass straight through. So a lot of agents, automations and scrapers will pass through.

Here's **our toolkit** to identify non-human events



1. GA4 bot-filtering *Not really*

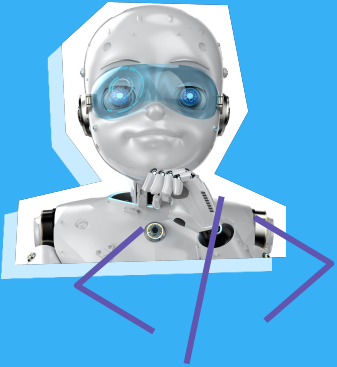
Anything that looks like a normal browser session from Google's POV will usually pass straight through. So a lot of agents, automations and scrapers will pass through.

2. Session/event/timing analysis *Best done in BQ*

You are mostly looking for short sessions like:

- event heavy with close-to-zero gaps in between
- odd user agent strings
- high frequency from a single IP / geo in small timeframes
- client-side signal (see item 3)

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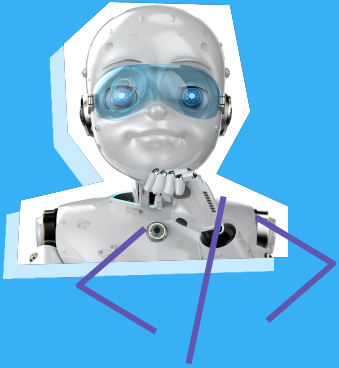
3. Browser APIs

- navigator.userAgent
- event.isTrusted

What is it?

navigator.userAgentActivation

- **navigator.userAgentActivation.isActive** – current **transient activation** (a click/scroll or keypress just happened).
- **navigator.userAgentActivation.hasBeenActive** – **sticky activation**, any user activation has ever happened in this page's lifetime.

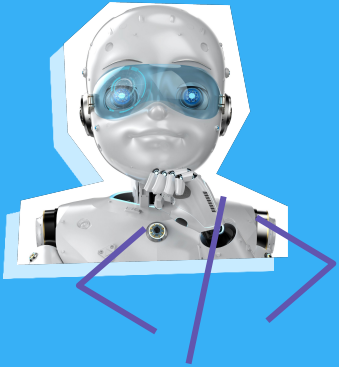


What can go wrong?

navigator.userAgentActivation

- It is purely “has there been a user gesture in this window recently / ever”
- AI agents can simulate user-gesture–like sequences (click/keydown), causing `userActivation` to be `true`.

```
> navigator.userAgentActivation|  
< UserActivation {hasBeenActive: true, isActive: false}
```



What is it?

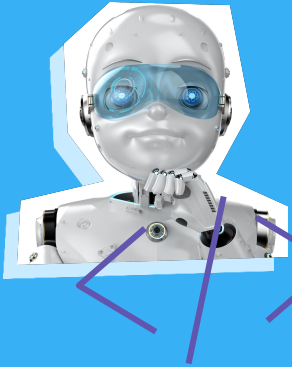
event.isTrusted

For DOM events (click, keydown, submit, etc.), a browser flag telling you if this event was generated by the browser itself or by a script.

- **event.isTrusted = true** for events it generates as a result of real input: mouse, keyboard, touch, etc.
- **event.isTrusted = false** for events created and dispatched from script

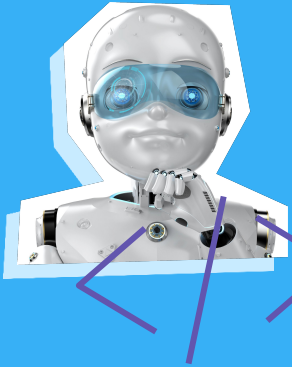
```
> const btn = document.querySelector('button');  
const ev = new MouseEvent('click', {});  
btn.dispatchEvent(ev);  
console.log(ev.isTrusted);
```

```
false
```



What can go wrong?


event.isTrusted



- **Automation can still produce trusted events**
Various tools (WebDriver, Playwright, accessibility automation, OS-level scripting) can create real mouse and keyboard events. To a browser, those look the same as human actions, so `isTrusted` will be true.
- **AI in a “real” browser looks human to the DO**
If an AI agent controls a normal Chromium instance, the resulting click/keydown events will be marked as trusted.
- **Scripted flows on your own site will show `false`**
If you simulate events in your own code (programmatically or dispatching custom events), those events will be `isTrusted=false` even though the underlying flow is “legitimate” and user-driven.

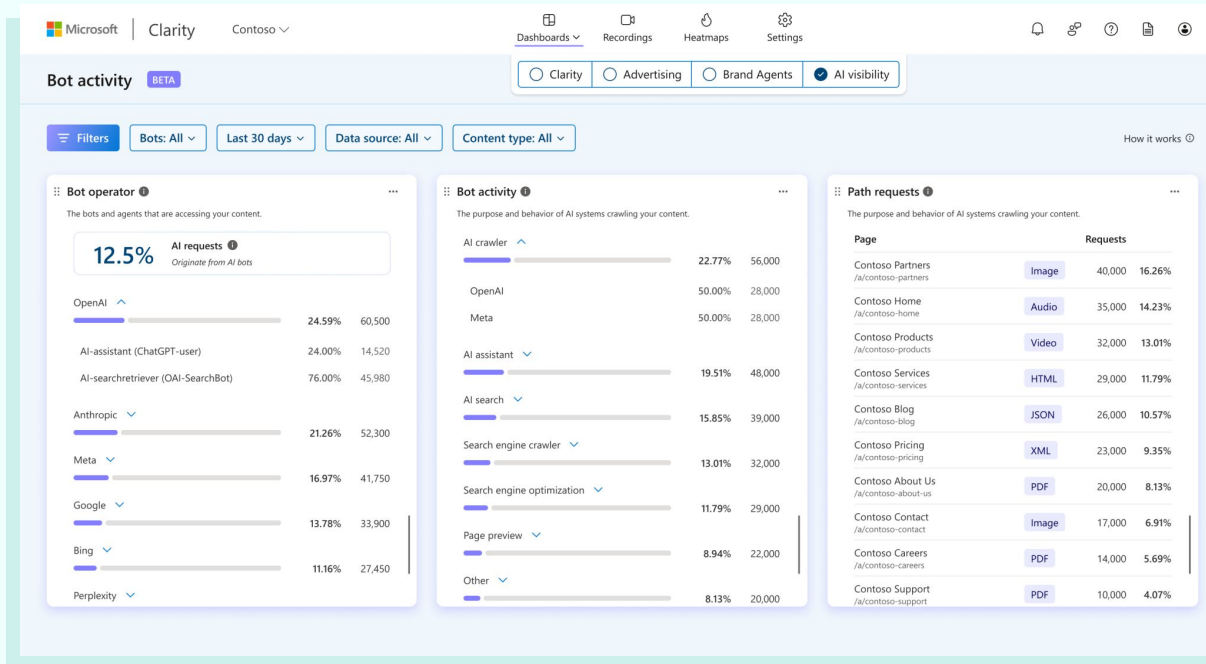
We need a new standard for non-human events

We can use both **navigator.isActive** and **event.isTrusted** as part of our heuristics to recognize patterns consistent with AI traffic, but neither individually nor combined they can act as proof, since they were never designed for the objective.





Microsoft Clarity's AI Bot Activity Dashboard



AI Bot Activity uses **server-side logs from connected content delivery networks (CDNs)** to identify crawler behavior with high accuracy.

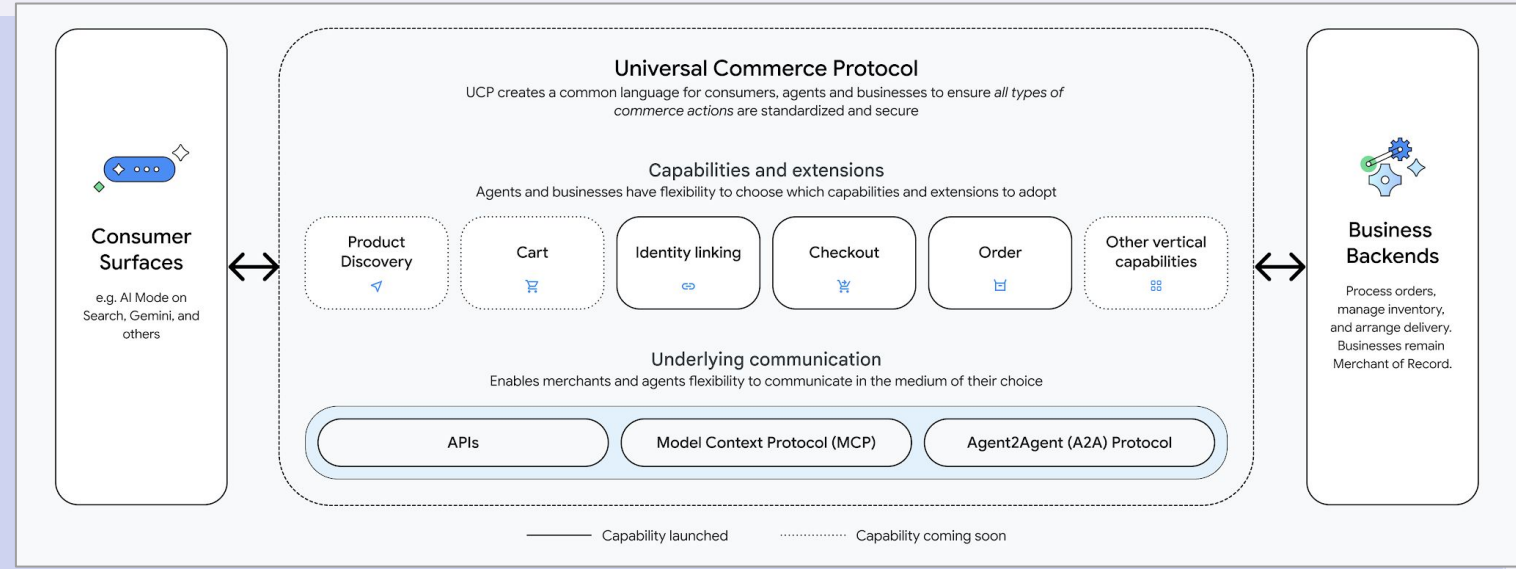


Universal commerce protocol

UCP

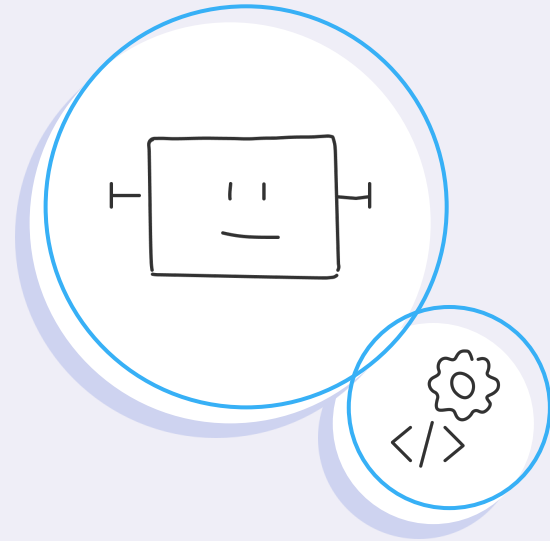
Universal Commerce Protocol

Powering agentic experiences across the commerce ecosystem.



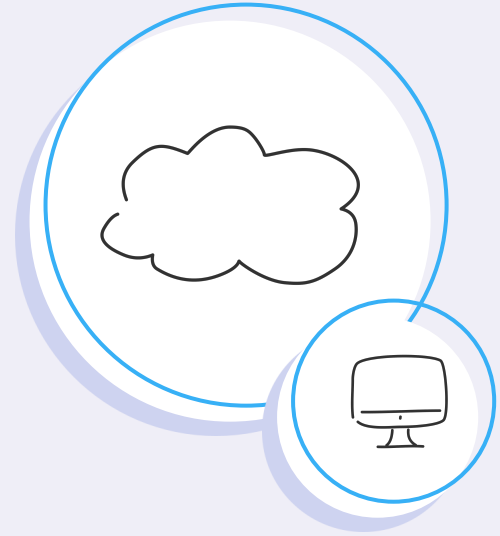
Universal Commerce Protocol

- Conceptually UCP is to AI commerce what HTTP is to web pages – a universal protocol so any AI agent can reliably talk to any integrated store.
- AI becomes a distribution channel, not just a recommendation engine.
- Browser pixel and ty-page are dead.
Long live the webhook.



So, is it fair to say “only webhooks”?

- The correct way to put it would be **it's not a browser pixel problem anymore**, it's a server/backend one.
- There are many possible ways to package this but it boils down to **signal from either an inventory system, payment gateway or both**.
- There will likely still be **left-over web signal**:
 - Intermittent page_views in the flow
 - Checkout might still be hosted in some cases, therefore emitting classic web events
 - Some implementations may still open a Thank you page



Conclusion

Is 'first-party' even more relevant in 2026?

Yes

Do we have even more users with tracking prevention tools?

Yes

Should you already start tracking AI traffic

Maybe 😊

Can you survive all this w/o server-side?

No, not really



Thank you!

Any questions?

stape.io