

Digital Rights at Pitt

Welcome. Please scan this.

It opens our tools page: every browser and
search engine from tonight, and why we
picked each one.



digital-rights-at-pitt.codeberg.page/tools.html

BROWSERS & SEARCH

Bring whatever you browse on. Leave with new defaults.

Part 1: your search engine

Hands up if you've changed your default search engine.



| Search with Google

Keep it up if it isn't Google.

Your default was bought

18%



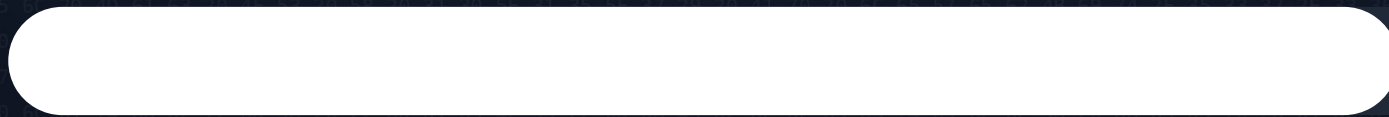
of Google's search ad money in 2021, \$26.3 billion of \$146.4 billion, went to buying default spots on browsers and phones.

36%



of the ad money from searches in Safari goes back to Apple. That came to about \$20 billion in 2022.

~75%



of Mozilla's 2023 income came from search deals, mostly Google's. Firefox runs on this money too.

Google testimony and court records in U.S. v. Google; Mozilla's 2023 audited financials.

Your searches can be evidence

SEARCH WARRANT

To: Google LLC, Custodian of Records

Identify every account, IP address and device that searched Google for any of these terms:

1. [REDACTED]
2. [REDACTED]
3. [REDACTED]

Searches made between [REDACTED] and [REDACTED].

Judge

Police name a search. Google hands over who typed it.

What the courts have said so far

Your location history

Protected

The U.S. Supreme Court ruled 6–3 in June 2026 that getting it from Google is a Fourth Amendment search.

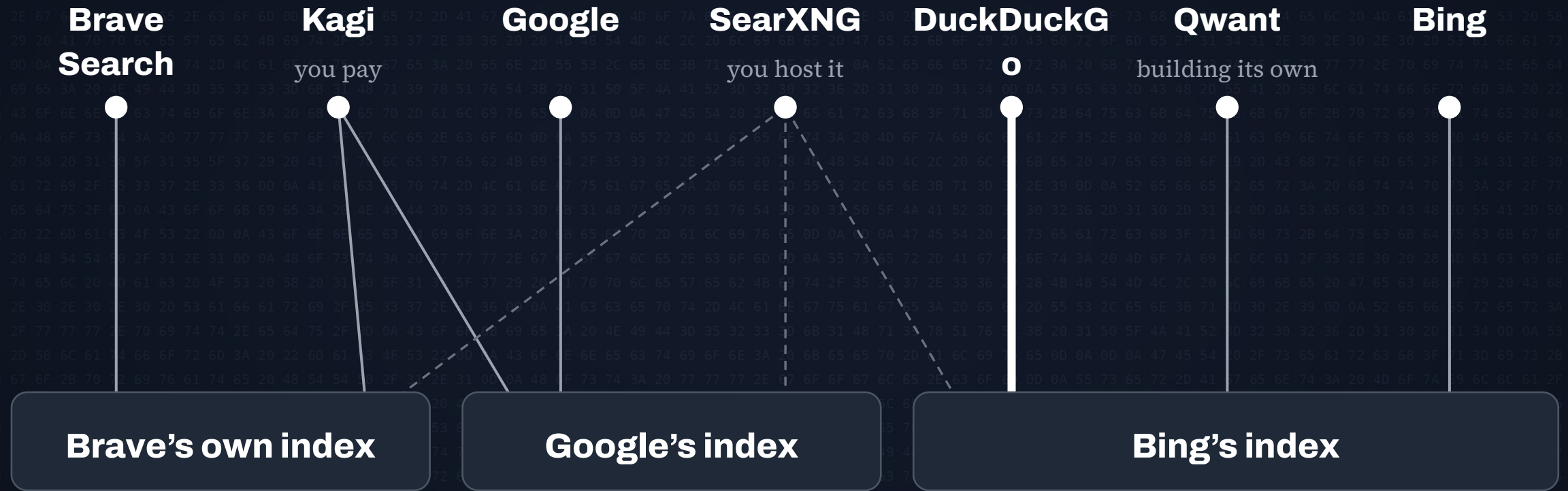
Your search history

Not yet

Pennsylvania's top court let a keyword warrant stand, 6–1, in December 2025. Three of those justices said ordinary Google searches aren't constitutionally private.

An engine that never kept your searches has nothing to hand over.

Who actually supplies the results



Kagi also mixes in a small index of its own. DuckDuckGo's help pages say most of its links come from Bing.

DuckDuckGo's quiet exception

Trackers on this page

Most other trackers

Blocked

LinkedIn (Microsoft)

Allowed

Bing ads (Microsoft)

Allowed

What a researcher found in DuckDuckGo's phone browsers, May 2022.

“our Microsoft search syndication agreement prevents us from doing more to Microsoft-owned properties”

DuckDuckGo's CEO, the same day

Fixed that August, except when you click one of its own ads.

■ To end that too, turn its ads off.

[duckduckgo.com/settings / General / Advertisements: Off](https://duckduckgo.com/settings/General/Advertisements:Off)

Why I don't use DuckDuckGo

It's a privacy layer on Microsoft's search.

It explained the Microsoft exception only after someone caught it. And on Android, its browser stops tracking cookies but fails cache tests that Brave passes.

Still beats Google. If it's what you'll actually use, use it.

Switch the default

Default search engine

☐ Google

paid to be here

☒ **Brave Search**

its own index

☐ Qwant

mostly Bing, for now

☐ Kagi

paid, no ads

☐ SearXNG

self-hosted

☐ DuckDuckGo

best of Safari's five

Where that menu is

iPhone, Safari

Settings / Apps / Safari / Search Engine

Android, Chrome

Chrome / Settings / Search engine

Brave or DuckDuckGo app

Already set to its own search

Laptop

Open search.brave.com once, then Settings / Search engine

Safari only lists Google, Yahoo, Bing, DuckDuckGo and Ecosia. Pick DuckDuckGo there.

Clear what Google already kept

Saved to your Google account	
Today	is the 71A running late
Yesterday	[REDACTED]
Tue	how to drop a class pitt
Mon	[REDACTED]
Oct 3	apartments in south oakland
Sep 28	[REDACTED]

- 1 Open myactivity.google.com
- 2 Web & App Activity / auto-delete after 3 months
- 3 Delete / All time



Scan to open it on your phone.

Part 2: your browser

What are you browsing on?

Safari

Brave

DuckDuckGo

Chrome

Firefox

Other

Hands up for yours. That decides which steps get the most time.

How unique is your browser?

Scan the code to run the EFF's test on your phone.

On a laptop? Go to coveryourtracks.eff.org

Remember its three answers. We run it again at the end.



Cover Your Tracks, from the EFF. Free,
nothing to install.

You can't delete a fingerprint

Every line is something your browser tells the sites you visit: screen, fonts, graphics chip, time zone, language.

So are your extensions.

In a study of 16,393 people, more than half with even one detectable extension were unique by their extensions alone. Keep one good blocker and drop the rest.

Built to fight it



Brave

randomizes it



Tor Browser

makes everyone match



Mullvad

same idea, no Tor

Safari has fought it by default since Safari 26.

Incognito doesn't hide this

en.wikipedia.org

Pitt's Wi-Fi sees this

HTTPS hides this

Private mode just wipes your history when you close it. These still see you:

- **The site you're on**
- **Google, if you're signed in**
- **Pitt's Wi-Fi**
- **Your internet provider**

Pitt's terms don't say what its network logs or for how long. We're asking Pitt to put that in writing.

Google changed its mind, twice

Google, 2020, on tracking cookies

~~“making third party cookies obsolete”~~

2025: kept them on by default

Google, 2019, on fingerprinting

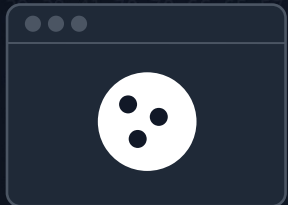
~~“subverts user choice and is wrong”~~

2025: let its advertisers do it

That’s the company that makes Chrome.

Brave every day. Tor when it counts.

Two kinds of cookies



The site's own cookie
Keeps you logged in and remembers your cart. Only that site reads it.

Stays
logged in



A tracker's cookie

The same ad company's cookie on every site, so it can follow you from one to the next.

Logs
you out

Brave keeps the first kind and blocks the second.

Followed across sites

Chrome, Edge

on Android or a laptop.
Logged in, and followed.

Nobody. That's the worst of both.

Not followed

Brave



our everyday pick

Safari, Firefox and DuckDuckGo block tracking cookies too.

**Tor Browser
Mullvad Browser**

They forget everything when you close them, so you log in every single time.

Which browsers let the tracker follow you?

The test: a tracker drops a cookie on one site, then tries to read it on the next.

	iPhone Apple blocks it in every app	Android	Laptop
Safari	✓ Stops it	—	✓ Stops it
Brave	✓ Stops it	✓ Stops it	✓ Stops it
DuckDuckGo	✓ Stops it	✓ Stops it	✓ Stops it
Chrome	✓ Stops it	✗ Gets through	✗ Gets through
Firefox	✓ Stops it	✓ Stops it	✓ Stops it
Edge	✓ Stops it	✗ Gets through	✗ Gets through

Of these, only Chrome and Edge let it through, and only on Android and laptops.

Opera, Vivaldi and Yandex fail too. PrivacyTests, October 7, 2026, default settings.



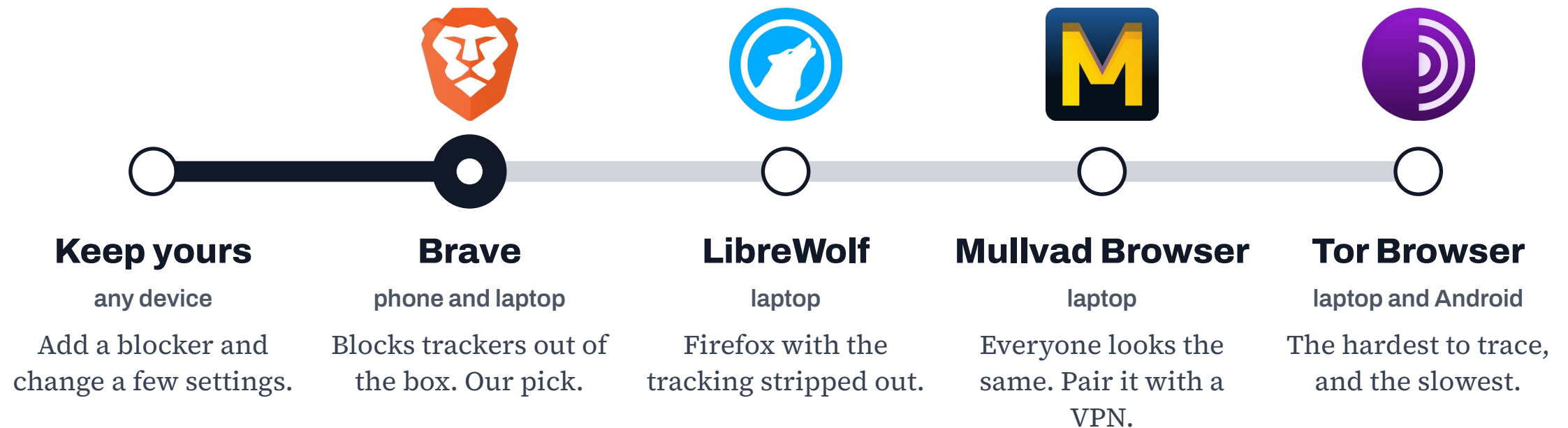
privacytests.org

Tap any result to see what leaked.

How far do you want to go?

Easiest

Most private



Brave isn't spotless: in 2020 it slipped its own affiliate codes into crypto exchange addresses people typed, then removed them.

Same disguise, different route

Mullvad Browser vs Tor Browser

Both come from the Tor Project, both make every user look the same, and both forget everything when you close them. The difference is the road your traffic takes.



Tor Browser



Three volunteer relays. The site never sees your address, and no single relay sees both ends. Slower, and some sites block it.



Mullvad Browser



No VPN built in, so you bring one you trust. That one company can see both ends. Normal speed, fewer blocks.

Being traced could hurt you? Tor. Just want the disguise at full speed? Mullvad.

Change these settings

	Phone	Laptop
Safari	Settings / Apps / Safari / Advanced / Advanced Tracking and Fingerprinting Protection: All Browsing	Safari / Settings / Advanced / Advanced tracking and fingerprinting protection: In all browsing
Safari: add AdGuard	App Store: AdGuard . Then Settings / Apps / Safari / Extensions: turn on every AdGuard blocker	Mac App Store: AdGuard Mini . Then Safari / Settings / Extensions: turn on every AdGuard blocker
Brave	Already on. Nothing to change.	
DuckDuckGo	duckduckgo.com/settings / General / Advertisements: Off . That ends the Microsoft exception.	
Chrome	Android: Settings / Site settings / Third-party cookies: Block	Settings / Privacy and security / Third-party cookies: Block . Then add uBlock Origin Lite.
Firefox	Android: Settings / Enhanced Tracking Protection: Strict . Then add uBlock Origin.	Settings / Privacy & Security: Strict . Settings / AI Controls: Block AI enhancements . Add uBlock Origin.
Edge	—	
		Settings / Privacy, search, and services / Tracking prevention: Strict . Then add uBlock Origin Lite.

Menu different? Type the setting's name into the search box in Settings.

Now run the test again

Same site as the start. Compare its three answers with yours from before.

	Before	After
Blocking tracking ads?		
Blocking invisible trackers?		
Protecting you from fingerprinting?		

The fingerprint line is the hard one. Brave, Tor Browser and Mullvad Browser are built to change it.

Comparing browsers? privacytests.org



Before you go

- **Tell us what broke**

Say which slide had a path that didn't match.

- **Tell us what's next**

Say what you want covered and it goes on the list.

- **@digitalrightsatpitt**

Meeting times on Instagram and our meetings page, where these slides go too.

No setting fixes Pitt's network or the law. That part is advocacy, and you can help.



Our tools page

Every pick from tonight, why we chose it, and where the other guides are.

Sources

Google's \$26.3B and \$146.4B (2021): Raghavan testimony, U.S. v. Google, via Bloomberg Law, Oct. 27, 2023.

Apple's \$20B (2022) and 36% share: U.S. v. Google court record, via Yahoo Finance and The Verge.

Mozilla 2023 audited financial statements, via OMG! Ubuntu, Dec. 2024.

Commonwealth v. Kurtz, 98 MAP 2023 (Pa. Dec. 16, 2025), via the Brennan Center's State Court Report.

Chatrie v. United States, No. 25-112 (U.S. June 29, 2026).

Brown v. Google settlement: Reuters, Apr. 1, 2024.

Microsoft tracker exception: Bleeping Computer, May 24 and Aug. 5, 2022; ACS Information Age, May 2022.

DuckDuckGo Help Pages: result sources, ads by Microsoft, web tracking protections, and changing the default search engine.

Brave Search drops Bing: TechCrunch, Apr. 28, 2023. Qwant and Ecosia's index: tech.eu, Aug. 6, 2025.

Kagi's sources: Kagi feedback forum and changelog, 2023–24.

Brave affiliate codes: The Block, June 6, 2020.

PrivacyTests.org No. 103, Oct. 7, 2026: desktop, iOS and Android results.

Mullvad Browser: Tor Project support pages and Privacy Guides. Tor Browser: Tor Project's app listing.

Google, Chromium Blog, Jan. 14, 2020; Google, Aug. 2019; Google ads policy, Feb. 16, 2025, with the ICO's response, via Proton.

Third-party cookies kept: Google, Apr. 22, 2025.

Safari 26 fingerprinting protection: 9to5Mac, 2025. AdGuard for iOS and AdGuard Mini: App Store listings and AdGuard's guides.

Safari's search engine list: Apple Support Community. Chrome on Android cookies: Zoho and CookieScript help pages.

Firefox 148 AI controls, Feb. 24, 2026. EFF, Cover Your Tracks.

Extensions and fingerprinting: Gulyás et al., WPES 2018; Bleeping Computer, 2022.