

Making Your Personal Data Private



Jacob Astar

THAT Conference, WI 2024



Who Am I

Professional:

- Application Security Engineer
- Former Combat Engineer
- Degrees in cybersecurity and software engineering
- Certifications: PNPT, CISSP, CSSLP

Personal:

- Married
- One American Bulldog, and one cat of unknown origin.
- Basically anything as a hobby... not even exaggerating

Agenda

- What are data brokers?
- How do they get your data?
- How do they use your data?
- Manually removing your data from brokers
- Automated removal of your data
- Minimizing the collection of your data going forward



What are Data Brokers?

Companies that make money collecting, buying, and selling your personal data for research, advertising and sales purposes.

How do they get your data?

Public Records

- State and County Records
- Business Registration Records
- Domain Registration Records
- Lawsuit Records
- News Articles



Icons: PublicRecords.com

How do they get your data? (cont)

Social Media

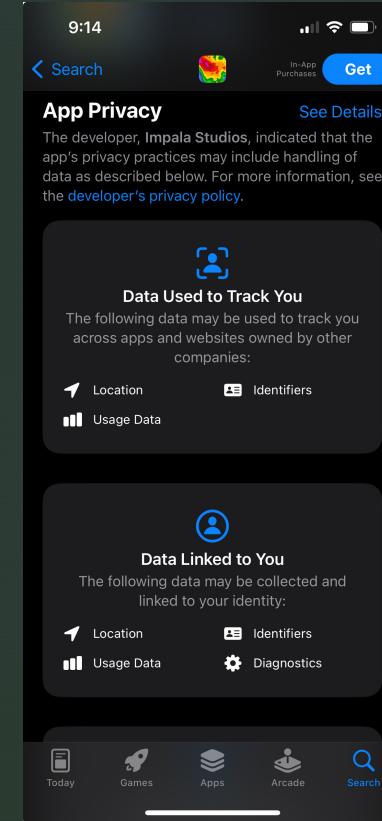
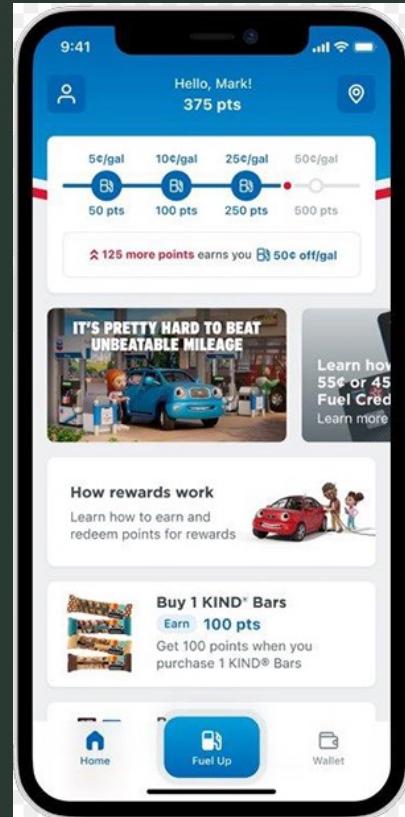
- "Anonymized" ad tracking
- Scraping public profile information, posts, comments
- Through "opt-in" add-ons, apps, services, etc (Cambridge Analytica Scandal)



How do they get your data? (cont)

Free Apps / Reward Services

- Profile Information (email, phone number, address, Device ID, etc)
- Purchase history (Items, payment method, etc)
- Location data (GPS, Bluetooth, etc)



How do they get your data? (cont)

“Big ticket items” don’t NOT collect your data...

- Modern Vehicles
- Smart Devices (TV, Fridges, thermostats, etc)

TECH Published March 14, 2024 8:31am EDT

Automakers tracking drivers, sharing data with car insurance companies

Security

Samsung says customer data stolen in July data breach

Zack Whittaker, Carly Page 9:27 AM PDT • September 2, 2022

How Do They Use Your Data?

The end-goal of data brokers is to correlate any data they have access to, to build profiles on people and packages on groups that they can then sell to any organization that is interested in the data.

They sell to:

- Insurance Companies
- Marketers
- Housing, employers, credit lenders, etc
- Government Agencies
- Criminals / Scammers

Removing your Data Manually

- Search your name on any major search engine
- Use Quotation marks
- Add keywords like “public data”, “Address”, “history”, “phone number”, etc

The screenshot shows a Google search results page for the query "Jacob Astar". The results include:

- that.us**: Jacob Astar - THAT - THAT Conference. Description: Jacob Astar. Member Spotlight. Jacob Astar. Security Engineer, Cargill. Member Since September, 2020. My favorite part of tech is it's function and the impact ...
- THAT Conference**: Jacob Astar - THAT. Description: Jacob Astar. Member Spotlight. Jacob Astar. Security Engineer, Cargill. Member Since September, 2020. Connect. My favorite part of tech is it's function and the ...
- Facebook**: Jacob Astar in people. Description: View the profiles of people named Jacob Astar. Join Facebook to connect with Jacob Astar and others you may know. Facebook gives people the power to...
- LinkedIn**: Jacob Astar. Description: 7 reactions · 1 month ago · Jacob Astar's Post. Description: Jacob Astar's Post ... Hey everyone! Hire Christina right now! She's one of the smartest people I know and been one of my favorite coworkers of my ...
- X**: Jacob Astar. Description: Sign up · Opens profile photo. Jacob Astar. @jacobastar_. Texas, USA Joined July 2016. 23 Following · 8 Followers · Posts · Replies · Media. Jacob Astar's posts.
- Wiza**: Jacob Astar - Cloud Engineer at Ara. Description: View Jacob Astar's email address and phone number. Jacob works at Ara as Cloud Engineer. Jacob is based out of Saint Cloud, Minnesota, United States and ...
- iHeart**: John Jacob Astor - Stuff You Missed in History Class. Description: Dec 14, 2022 — of numbers of animals late in the episode, but uh, a lot of fur trade and trapping talk just in general. So John Jacob Astar was born July ...

Removing your Data Manually (cont)

- Make note of your data on the site.
- Locate the “Opt-Out” or “Data Removal” links, normally in the footer of the page, or inside an FAQ section.

The screenshot shows a user profile for Jacob Astar on the Wiza platform. The top navigation bar includes the Wiza logo, 'Solutions', 'Resources', 'Pricing', and a 'Log in' button. The breadcrumb navigation shows 'Directory / Ara / Jacob Astar'. The main content area displays Jacob Astar's contact information, including his email (j*****@me***.com) which is marked as valid, and his location in Saint Cloud, Minnesota, United States. To the right, there is a sidebar with the text 'Find anyone's contact info.' and a button 'Get 20 free email reveals'.

Solutions	Resources	Company
Wiza for Sales	Blog	Feature Requests
Wiza for Recruiting	Knowledge base	Changelog
API	Support	Become an affiliate
Integrations	Status	Terms of service
Pricing	Free email finder	Privacy policy
Get a demo	Free email verifier	Vulnerability disclosure
	Company directory	Opt out

Removing your Data Manually (cont)

- Fill out the form
- Use an email you don't care about because they will collect that email and use it.

Directory removal request

Please fill out the form below in order to remove your profile from the Wiza public directory.

First name *

Last name *

Email * 

Company

Directory Profile URL *

Verify you are human

I'm not a robot 
reCAPTCHA
Privacy - Terms

Removing your Data Manually (cont)

- Check your email for the confirmation
- Perform any actions to finish the request

Wiza <bot@e.wiza.co>

to me ▾

Hello Jacob,

You have requested to optout from the Wiza directory.

Please click the link below to confirm:

https://wiza.co/bridge/verify_directory_optout/akE5TTdtUDI2RUsoMUdWRXF

After confirmation, please allow 72 hours for your request to be processed.

Thank you.



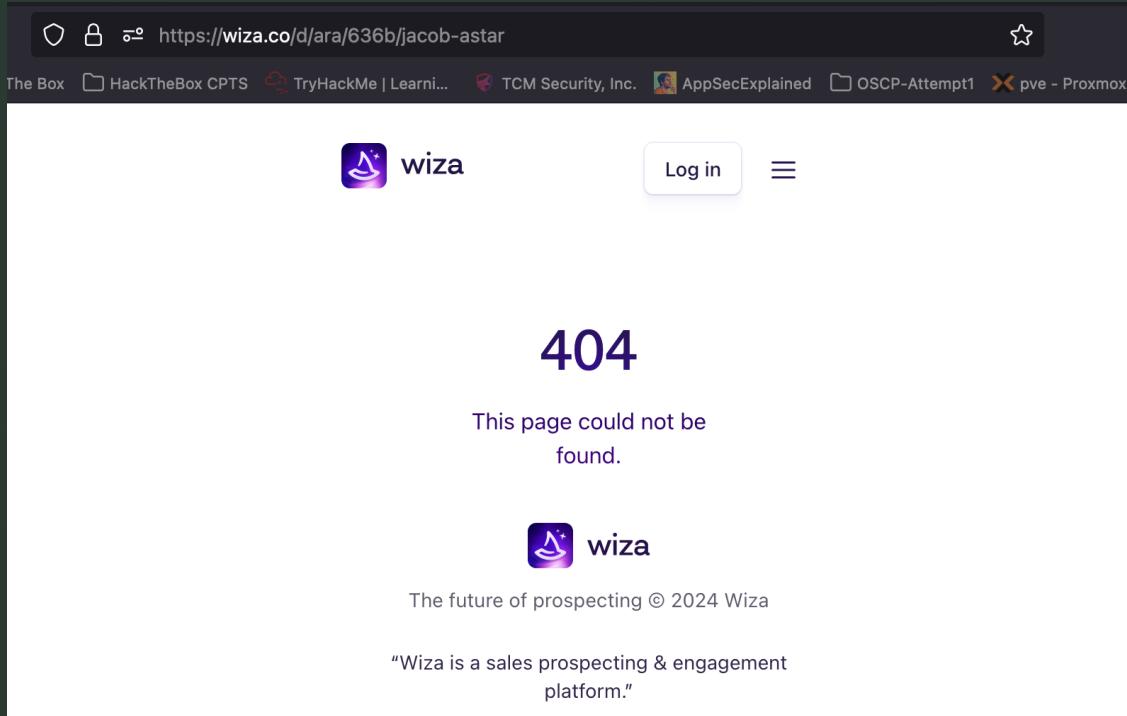
Your opt-out is being processed.

Please allow up-to 72 hours for your request to be completed.

Do you have questions? Just shoot us an email at hello@wiza.co and we'll get back to you as soon as possible.

Removing your Data Manually (cont)

- Check back after the specified time to ensure it was removed.
- Note that search engine results may remain until the cache is refreshed.



Removing your Data Manually (cont)

For requesting information removal via email:

- Include the specific data that you want removed
- DO NOT include any data that they don't already have.
- State in clear language that you are also opting out of the sale and licensing of your information

11. How can I have my Reputation Profile removed, ask what personal information you maintain about me, or ask to opt-out of the sale of my personal information?

You can have your profile removed or ascertain what information MyLife has about you by contacting our MyLife.com® Customer Care representatives at membersupport@mylife.com. You can opt out of sale of information through either of the above mechanisms or by completing the webform at [Do Not Sell My Personal Information](#). When you request that we not sell your personal information, we also will remove your profile from our site.

Hello,

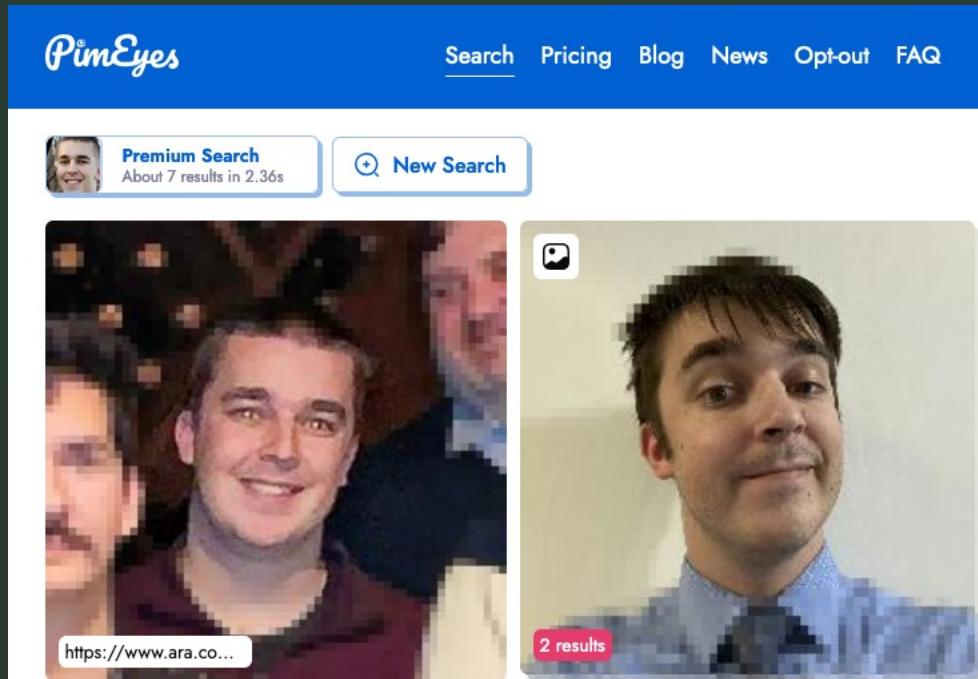
I am writing to request the removal of _____, _____, and _____ from your website. I am also opting out of you selling and/or licensing my information to any third party entity.

Sincerely,
Jacob Astar

Other Sites to Check

Pimeyes.com

- Free to check if there's results
- Paid to see the details and remove
- Paid to set up recurring checks



Other Sites to Check

HavelBeenPwned.com

- Free to check your email
- Can set up alerts

Breaches you were pwned in

A "breach" is an incident where data has been unintentionally exposed to the public. Using the [1Password password manager](#) helps you ensure all your passwords are strong and unique such that a breach of one service doesn't put your other services at risk.

Last.fm

[Last.fm](#): In March 2012, the music website Last.fm was hacked and 43 million user accounts were exposed. Whilst [Last.fm knew of an incident back in 2012](#), the scale of the hack was not known until the data was released publicly in September 2016. The breach included 37 million unique email addresses, usernames and passwords stored as unsalted MD5 hashes.

Compromised data: Email addresses, Passwords, Usernames, Website activity



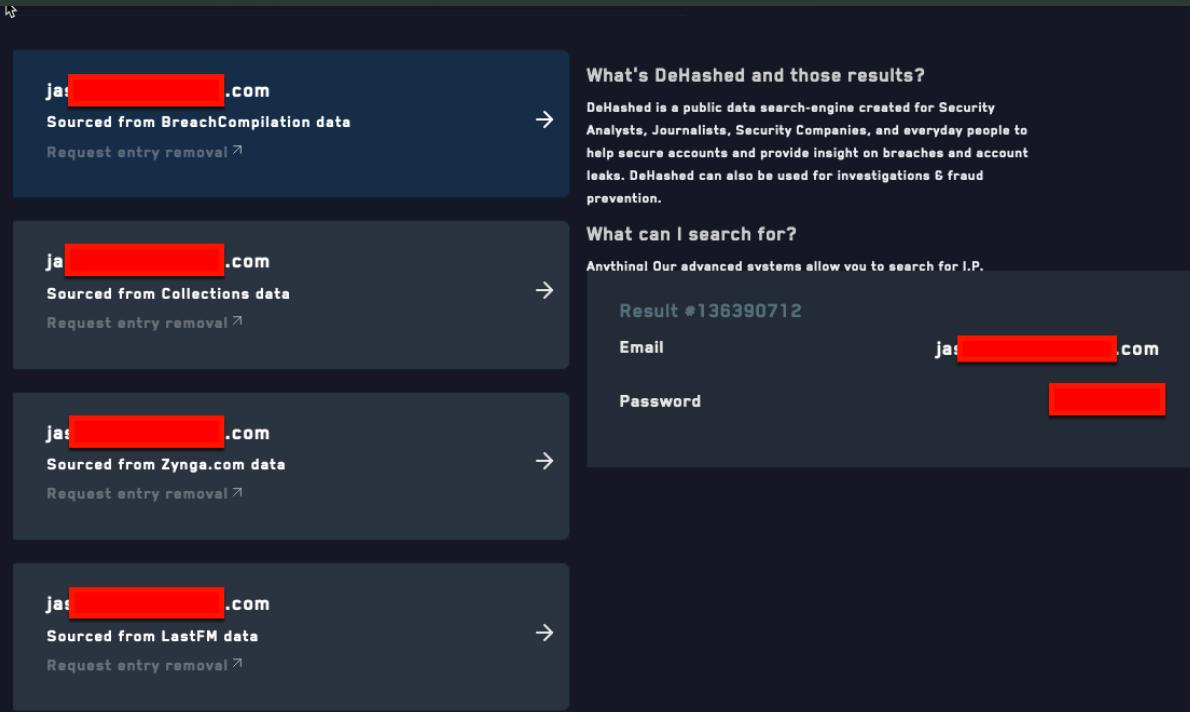
[Zynga](#): In September 2019, game developer Zynga (the creator of Words with Friends) suffered a data breach. The incident exposed 173M unique email addresses alongside usernames and passwords stored as salted SHA-1 hashes. The data was provided to HIBP by [dehashed.com](#).

Compromised data: Email addresses, Passwords, Phone numbers, Usernames

Other Sites to Check (cont)

Dehashed.com

- Paid to search
- Would recommend if your email shows up on haveibeenpwned

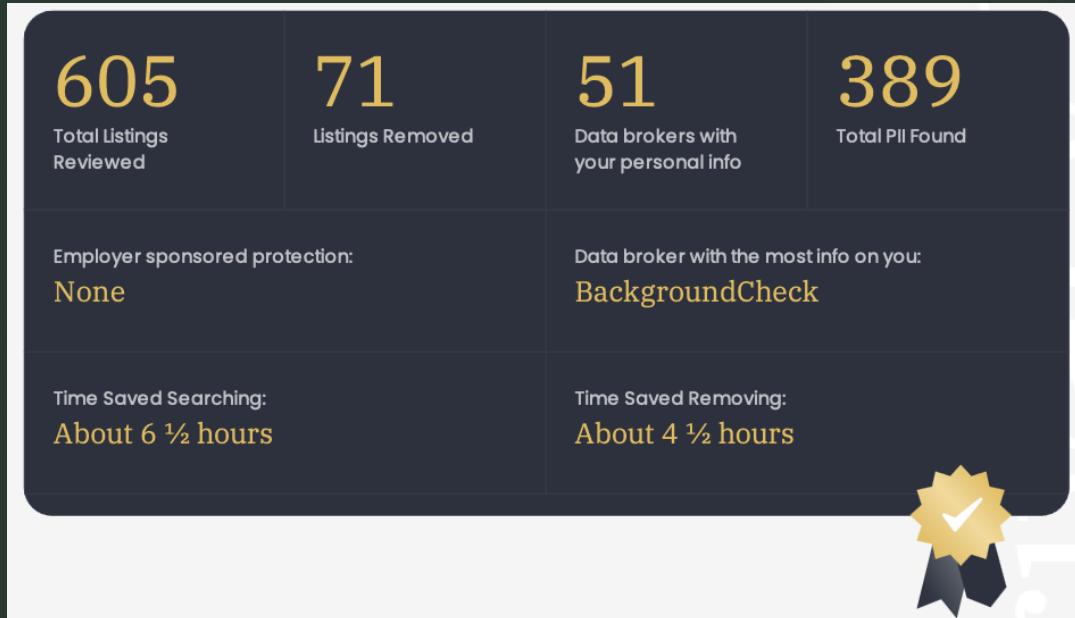


DeleteMe (Automated Data Removal)

JoinDeleteMe.com

- You provide information that it will use to identify your records.
- Searches for your data and submits removal requests on your behalf.
- Generates a report every 3 months

Scan Results From: ~~May 2024~~



DeleteMe (Automated Data Removal)

411COM REMoval TIME 14 Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records	BACKGROUND CHECK RUN REMoval TIME 3 Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records	BeenVerified.com® REMoval TIME 10 Business Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records
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CLUBSET REMoval TIME 4 Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records	CURADVISOR REMoval TIME 5 Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records	CENTEDA REMoval TIME 4 Days PERSONAL INFO EXPOSED <table><tbody><tr><td>Name</td><td>Photos</td></tr><tr><td>Age</td><td>Email</td></tr><tr><td>Address</td><td>Past Address</td></tr><tr><td>Phone</td><td>Occupation</td></tr><tr><td>Relatives</td><td>Marital Status</td></tr><tr><td>Spouse Name</td><td>Propr. Value</td></tr><tr><td>Social Media</td><td>Court Records</td></tr></tbody></table> REMOVAL IN PROGRESS	Name	Photos	Age	Email	Address	Past Address	Phone	Occupation	Relatives	Marital Status	Spouse Name	Propr. Value	Social Media	Court Records
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AdvancedBackgroundChecks REMoval TIME 48 Hours CLEAN!	AdvancedPeopleSearch REMoval TIME 10 Days CLEAN!	BeenVerified.com® REMoval TIME 10 Business Days CLEAN!																																										
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ClustrMaps REMoval TIME 30 Days CLEAN!	dexknows. REMoval TIME Up To 6 Weeks CLEAN!	emailfinder.com REMoval TIME Up To 6 Weeks CLEAN!																																										
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Going Forward...

The goal is to reduce the amount of your data that is collected and lessen the ability for data brokers to correlate your data together.

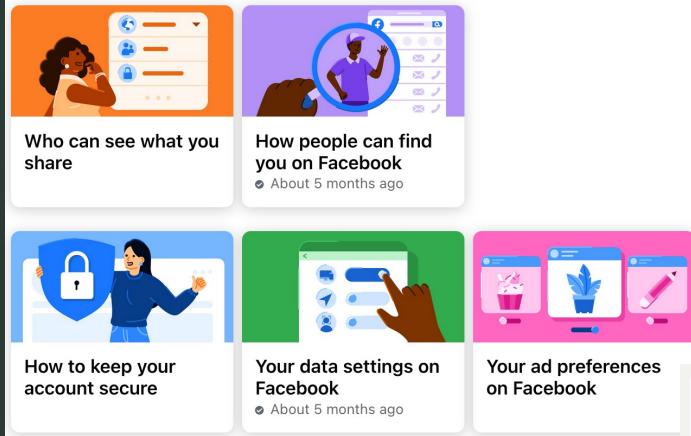
- Social Media Hygiene
- Privacy email forwarders
- Alternative Phone Number Services
- Virtual Credit Cards
- Third Party Mailboxes
- Ad Blockers

Social Media Hygiene

Facebook

Privacy checkup

We'll guide you through some settings so you can make the right choices for your account. What topic do you want to start with?



LinkedIn

How LinkedIn uses your data

- Manage your data and activity →
 - Get a copy of your data →
 - Search history →
 - Personal demographic information →
 - Social, economic, and workplace research On →
- ### Who can reach you
- Invitations to connect →
 - Invitations from your network →
 - Messages →
 - Research invites On →

X (Twitter)

Your X activity

- Audience, media and tagging Manage what information you allow other people on X to see.
- Your posts Manage the information associated with your posts.
- Content you see Decide what you see on X based on your preferences like Topics and interests
- Mute and block Manage the accounts, words, and notifications that you've muted or blocked.
- Direct Messages Manage who can message you directly.
- Spaces Manage who can see your Spaces listening activity
- Discoverability and contacts Control your discoverability settings and manage contacts you've imported.

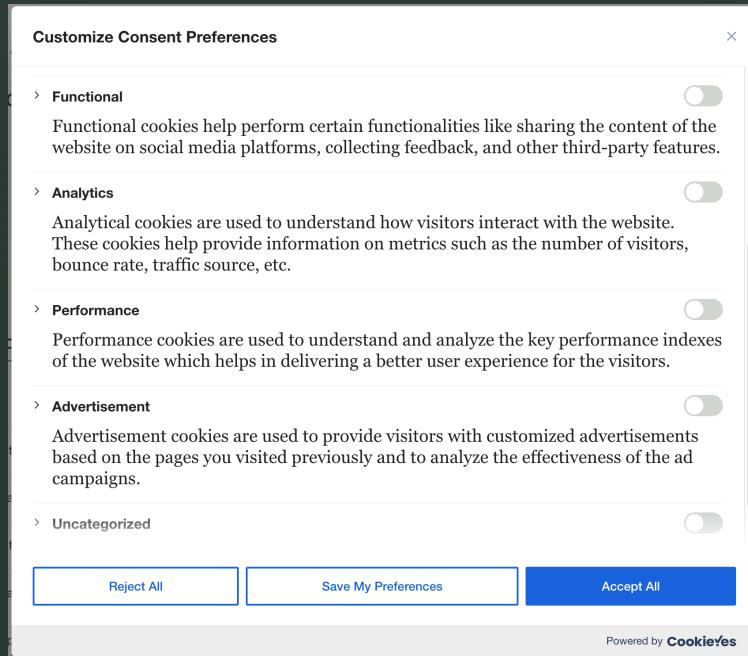
Data sharing and personalization

- Ads preferences Manage your ads experience on X.
- Inferred identity Allow X to personalize your experience with your inferred activity, e.g. activity on devices you haven't used to log in to X.
- Data sharing with business partners Allow sharing of additional information with X's business partners.

Review Cookie Consent

When you encounter cookie consent forms, be sure to review the options, because you can usually opt out of any of the non-functionally required cookies.

In your browser settings, you can also set options to have all cookies deleted when you close your browser.



Cookies and Site Data

Your stored cookies, site data, and cache are currently using 218 MB of disk space. [Learn more](#)

Delete cookies and site data when Firefox is closed

[Clear Data...](#)

[Manage Data...](#)

[Manage Exceptions...](#)

A screenshot of the 'Cookies and Site Data' section of the Firefox settings. It shows a summary of stored data usage (218 MB) and a checkbox for deleting data on exit. There are three buttons at the bottom: 'Clear Data...', 'Manage Data...', and 'Manage Exceptions...'.

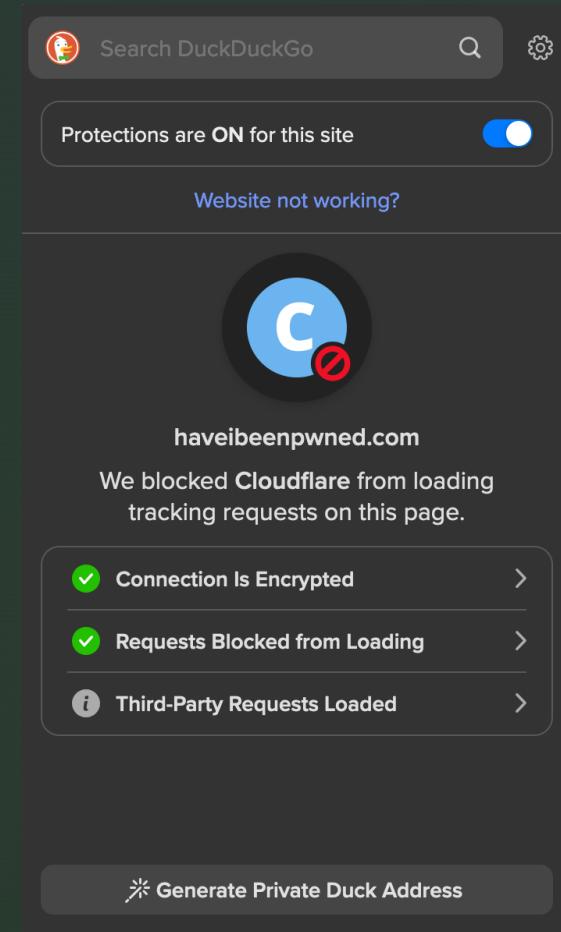
Privacy Email Forwarders

Duck Duck Go's Browser Extension

- Checks common website security settings
- Blocks tracking requests from loading
- Email Forwarding service
 - Generates a unique email for you
 - Removes embedded trackers from the email
 - Forwards to your regular email
 - Allows you to respond from that email

Email address* —

Password* —



Alternative Phone Services

Use an app that gives you a phone number that you give out to services and stores where you don't want your personal number collected.

- Google Voice
- Burner

Both integrate well with the native calling functionality of iOS and Android, providing seamless answering.

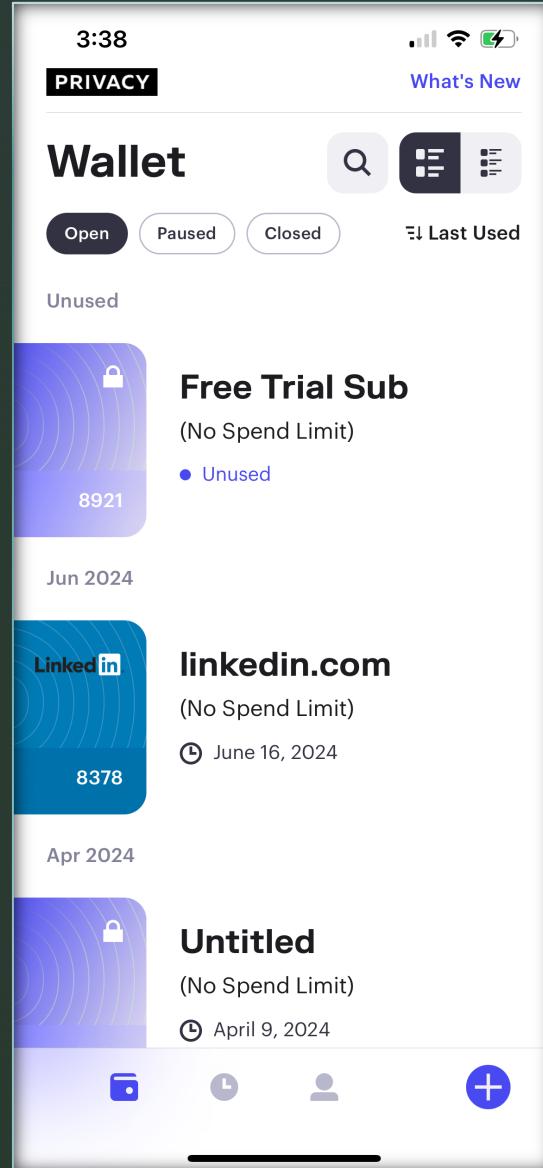


Virtual Credit Cards

Privacy.com

- Link your debit/card
- Generate virtual credit cards for online use
- Cards can be merchant locked or one-time use

MySudo is another app that offers similar functionality, but no free tier.



Third Party Mailboxes

UPS Store:

- Keeps your home address out of the hands of data brokers.
- Allow you to have a “real” address for services that require it.
- Provides a safer location for packages versus your doorstep



Ad-Blockers / Ad-Confusers

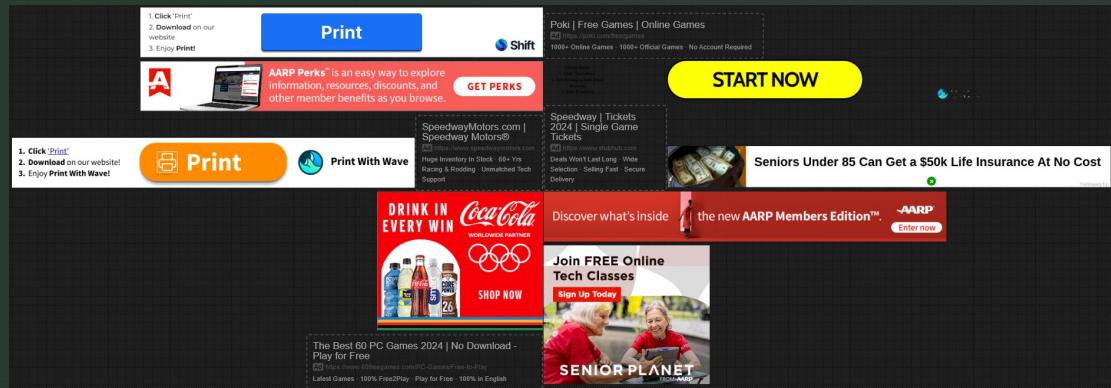
PiHole

Network wide ad blocker that works by blocking the DNS requests that websites send to pull ads onto the website.



Adnauseam

Browser plugin that clicks on every ad and then tosses away the response so advertisers can't draw conclusions from your activity.



Summary

- Basically, everyone tries to make money off collecting and selling your data.
- You can remove your data yourself or having someone remove it for you.
- Going forward, just really need to think about how you can prevent data brokers from collecting and correlating your data.

SPECIAL THANKS TO ALL OUR AWESOME CAMP SPONSORS!

Unspecified



DATASTAX



Temporal



PROPELAUTH



PIECES.
FOR DEVELOPERS



redgate



MESCIUS
FORMERLY GRAPECITY, INC.



AWS Amplify



Questions?

