



The Easy Path to Privacy

Privacy for normal people

Andrew Dinh



Goals

This is a talk for everybody

Explain why privacy matters

Recommend effective tools



About me

My name is Andrew Dinh

Interested in digital privacy since high school

Taught digital privacy class at UC Berkeley

Software engineer at Apple

Software engineer at OpenSSL Corporation



Digital
Privacy
DeCal



OpenSSL
CORPORATION

Why Privacy Matters

Who are we protecting ourselves from?

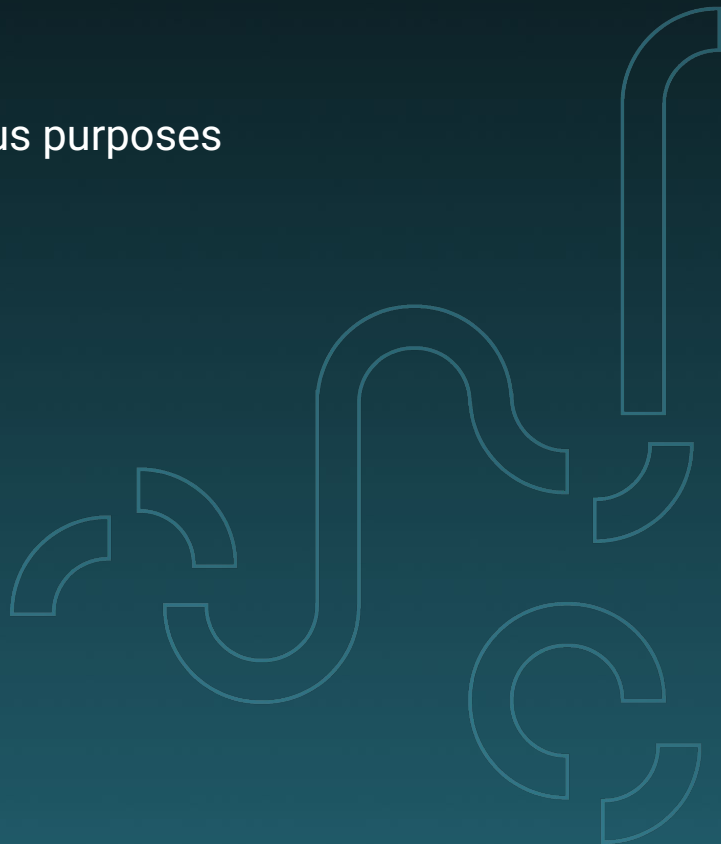
The most common ones:

People wanting to use your information for nefarious purposes

Blackmail, spam, stolen identities

Surveillance capitalism

Mass surveillance



"I have nothing to hide"

The most common reply I receive when discussing privacy

Sensitive info: medical records, religious beliefs, sexual orientation, private photos/videos

Even if *you* don't, what about your: parents, children, relatives, friends, future you

The option to share what you want, when you want



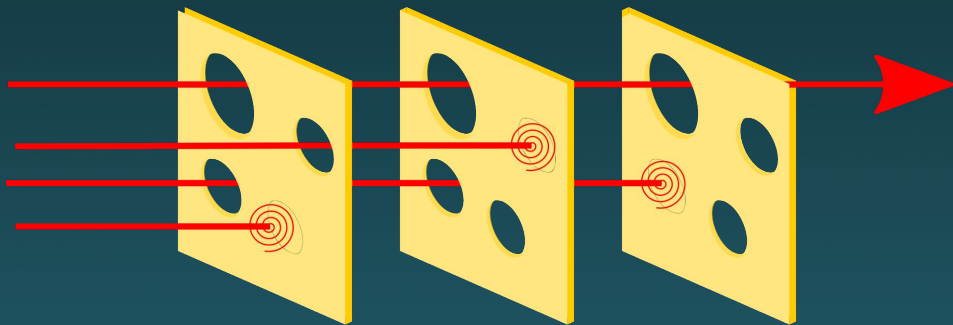
There is no one solution that fits all

Everybody's situation is different

Choose what is suited to your unique circumstances

Adopting alternatives has tradeoffs

Swiss cheese model: the more layers, the better



Why use private alternatives?

More tools = better privacy

Privacy as a selling point — if it's free, *you* are the product

Benefits of adopting alternatives beyond privacy

Safety in numbers



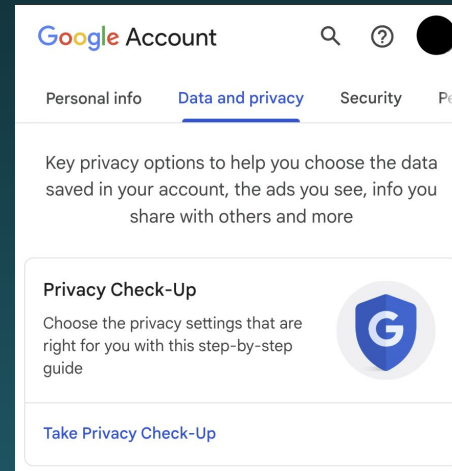
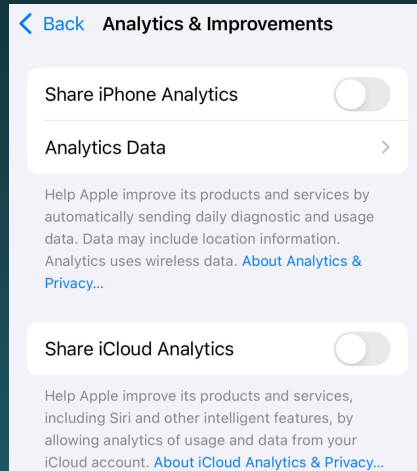
Recommended Privacy Tools

Privacy settings

(Almost) all software will have configurable privacy settings

No download required

Enable multifactor authentication (MFA/2FA)

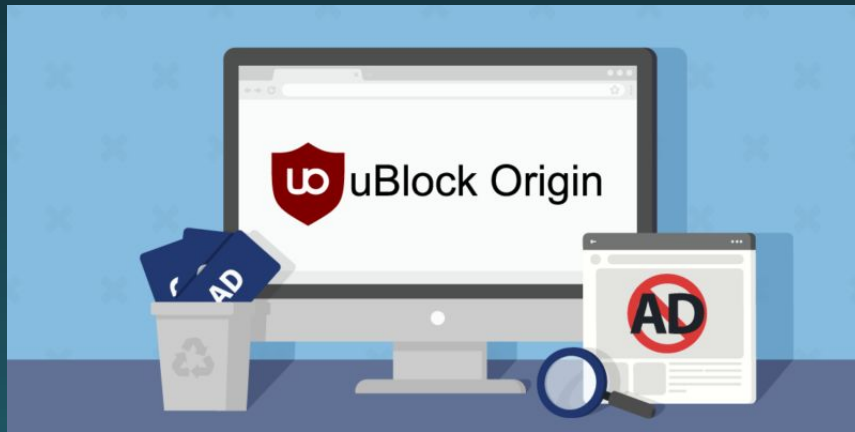


Adblocker

Content blocker for ads & trackers

Tracking scripts follow you across the internet


Recommended: uBlock Origin (FREE) & uBlock Origin Lite (FREE)



Credential stuffing

Your password likely isn't that unique

Passwords aren't always stored securely

Check on *Have I Been Pwned* website ()



*Have I Been
Pwned*

Top 20 most common passwords according to
NordPass

| Rank | Password | Count of password uses |
|------|-----------|------------------------|
| 1 | 123456 | 3,018,050 |
| 2 | 123456789 | 1,625,135 |
| 3 | 12345678 | 884,740 |
| 4 | password | 692,151 |
| 5 | qwerty123 | 642,638 |

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Data Breaches

Oh no — pwned! This email address has been found in multiple data breaches. Review the details below to see where your data was exposed.

Password manager

Generate, save, and autofill strong passwords

Secure storage for credit cards, backup codes, passkeys, etc.

Prevents phishing attacks

Cross-device

Recommended: Bitwarden (FREE / )



Bitwarden extra benefits

Paid individual: TOTP, share passwords with multiple users

Developers: CLI tool, SSH keys

Businesses: enterprise support, CI integration

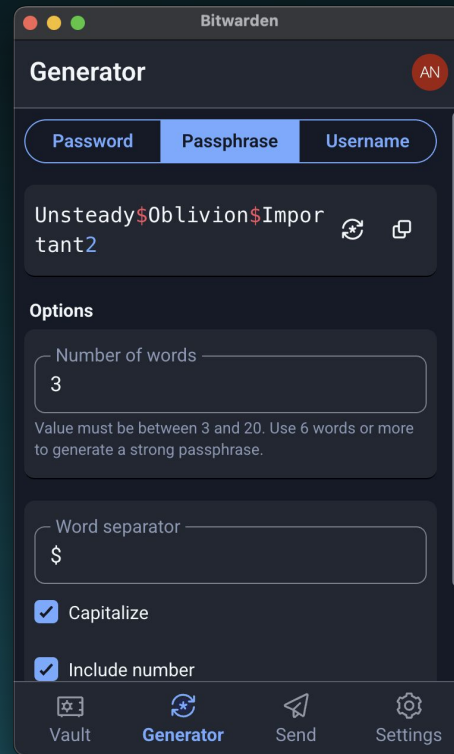
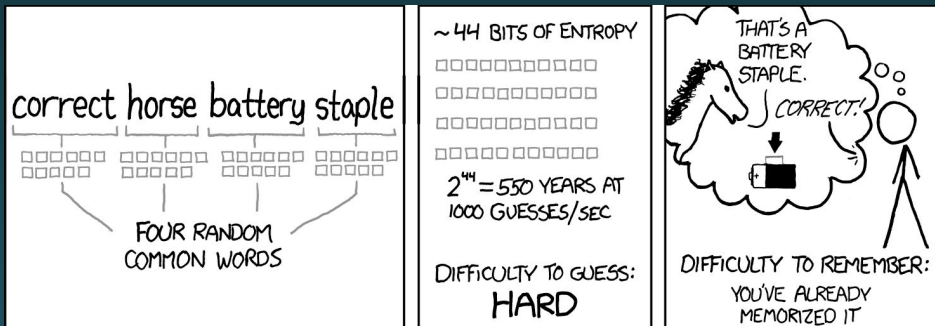


Choosing a password

Passphrases vs Passwords

Easier to type & remember

Still passes password validation



Instant chat

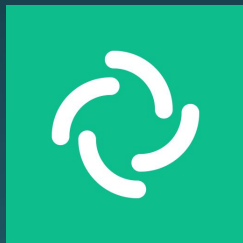
Communicate privately, instantly

Just works

End-to-end encryption (E2EE)

Minimal metadata

Recommended: Signal (FREE) & Element (FREE)



Responsive Information in Signal's Possession

Last connection date: 1634169600000 (unix millis)

Account created: 1606866784432 (unix millis)

Browser

Explore online with a browser that doesn't track you

Seamless import from old browser, works out of the box

Built-in privacy protections

Recommended: Brave (FREE), Firefox (FREE), & Safari (FREE)



Search engine

Search anonymously

Result quality can vary

Recommended: DuckDuckGo (FREE), Startpage (FREE), Brave Search (FREE)



Startpage



Other Recommendations

VPN

A VPN doesn't have as many benefits as many people believe

A VPN is just a tunnel

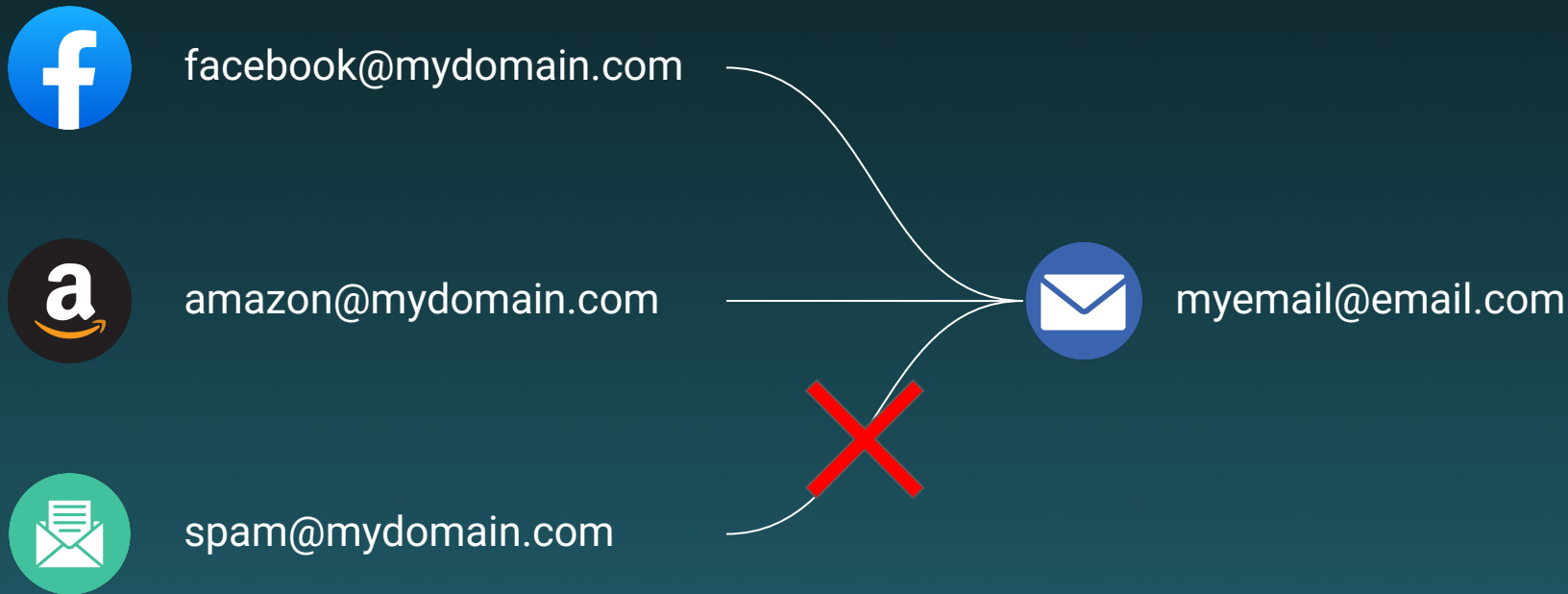
Using a VPN shifts trust

Recommended: Mullvad (🇪🇺), ProtonVPN (🇨🇦 / 🇪🇺)



Email aliases

Aliases forward messages to your actual email



Email aliases

Hide your real email address

Aliases can be disabled

Aliases can forward to multiple email addresses

Recommended: SimpleLogin (FREE / 🇪🇺), Addy.io (FREE / 🇪🇺), iCloud Hide My Email (🇪🇺)



And many more

Data removal services

Alternative frontends

Operating systems

Payment masking

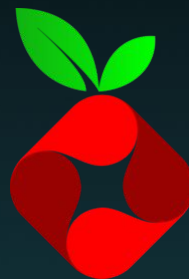
Email providers

Self-hosting

Fediverse

DNS

Tor



Thank you

Additional resources

Privacy Guides: privacyguides.org

The New Oil: thenewoil.org

Personal website: andrewkdinh.com

Email: andrewd@openssl.org

