



USNH CYBER MONTH YOUR PUBLIC DATA



PRESENTED BY: LILY LEE, SPLUNK

OCTOBER 24, 2023



deptomcruise ✓

Metaphysic.ai

Follow

3 Following 5.1M Followers 19.4M Likes

Parody and younger!

Source: <https://www.tiktok.com/@deptomcruise>

“How a deepfake Tom Cruise on TikTok turned into a very real AI company”



Source: <https://youtu.be/cQ54GDm1eL0>

“Jordan Peele turns Obama into foul-mouthed fake-news PSA”



Source: <https://media-cldnry.s-nbcnews.com/image/upload/rockcms/2023-10/tom-hanks-ai-ad-me-2301001-c4189e.png>

“Tom Hanks Warns Fans Against Deepfake Advert Featuring His Likeness”

Audience Poll

WHAT DOES PUBLIC DATA GENERALLY REFER TO?

- ☐ Information that's available to everyone without restrictions
- ☐ Information that's accessible to the public, but may have some limitations
- ☐ Private or sensitive information specific to an individual that may be accessible via public records
- ☐ I'm not sure
- ☐ None of the above

HOW THESE DATA TYPES ARE DIFFERENT



PARTLY
CLOUDY

OPEN DATA

Information that's
available to everyone
without restrictions



LIBRARY
CATALOG

PUBLIC DATA

Information that's
accessible to the
public, but may have
some limitations



HOME
ADDRESS

PERSONAL DATA

Private or sensitive
information specific to
an individual that may
be accessible via
public records

EXAMPLES OF YOUR PUBLIC DATA

PUBLIC RECORDS

Birth certificate, marriage license, divorce record, property ownership

EDUCATIONAL RECORDS

School directory, yearbooks, awards and honors, athletic records

PROFESSIONAL LICENSES

License required by law or regulation to practice a specific profession

PUBLISHED WORKS

Articles, books, research papers, blog posts, newsletters

COMMUNITY INVOLVEMENT

Volunteer work, board membership, fundraising and advocacy activities

SOCIAL MEDIA CONTENT

Publicly shared profile, tweets, posts, reactions, photos, videos, followers



HOW IS YOUR PUBLIC DATA COLLECTED?

DATA SCRAPING (WEB/SOCIAL MEDIA)

Extraction of data from
websites and webpages
or social media platforms

Audience Poll

ETHICAL VS UNETHICAL PUBLIC DATA/ WEB SCRAPING

Which are **ethical uses** of your public data obtained through web scraping?

- ☐ Data analysis for research
- ☐ Data harvesting for spam
- ☐ Enhancing public services
- ☐ Manipulative political campaigns
- ☐ Creating data-driven applications
- ☐ Identity theft through data aggregation

ETHICAL VS UNETHICAL USES

ETHICAL

Personal insights &
reputation management

Data control &
identity protection

Data cleanup

Job search

Research & advocacy

Educational opportunities

UNETHICAL

Identity theft

Stalking, harassment, bullying

Phishing & spamming

Invasion of privacy

Misinformation & defamation

Unauthorized profiling

Violating Terms of Service



HOW IS YOUR PUBLIC DATA COLLECTED?

DATA SCRAPING (WEB/SOCIAL MEDIA)

Extraction of data from websites and webpages or social media platforms

DATA BROKERS & AGGREGATORS

Companies that aggregate and sell your public data collected from various sources

COMMON TYPES OF DATA BROKERS

**FINANCIAL
INFORMATION**



**RISK
MITIGATION**



**MARKETING &
ADVERTISING**



**PEOPLE
SEARCH**



**HEALTH
DATA**



Audience Poll

WOULD YOU SELL YOUR PUBLIC DATA WILLINGLY?

☐ Yes

☐ No

☐ It depends on the data



HOME ADDRESS
\$1,048.60

14.5% of people say they **would not sell** their home address

FAMILY STATUS
\$837.10

14.9% of people say they **would not charge** for their family status

HEALTH STATUS
\$788.50

13.5% of people say they **would not sell** their health status

FULL LEGAL NAME
\$516.10

9.7% of people say they **would not sell** their full legal name

PRODUCT
CONSUMPTION HABITS
\$293.10

6.7% of people say they **would not sell** information on their general product consumption habits

SURVEY SAYS!

Based on a survey conducted in 2021 by SimpleTexting of more than 1,000 Americans



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PUBLIC RECORDS SEARCHES

Search for and retrieve public records from government agencies and organizations

PUBLIC RECORDS WITHIN YOUR DETAILED REPORT

Arrest records

Birth, marriage, divorce and death records

Business registrations and corporate filings

Court records

Driving records and traffic violations

Immigration records

Professional licenses

Tax records

Vehicle ownership records

Voting records

Weapons licenses



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WEB COOKIES & TRACKING TECH

Collect data about your online behavior (e.g., browsing habits and interests) and interactions

IS "CONSENT" AN ILLUSION?

Not all cookie banners
are created equal

1 Notice-only banner

Our website uses cookies

Our website uses cookies to continuously improve your experience and display content geared to your interests. By using our website and services, you agree to our use of cookies.

Got it

2 Implied consent banner

Our website uses cookies

Our website uses cookies to continuously improve your experience and display content geared to your interests. We assume your consent to the cookies if you continue to use the website like interacting with the website or directing to any other page on the website.

Accept

Decline

3 Explicit consent banner

Our website uses cookies

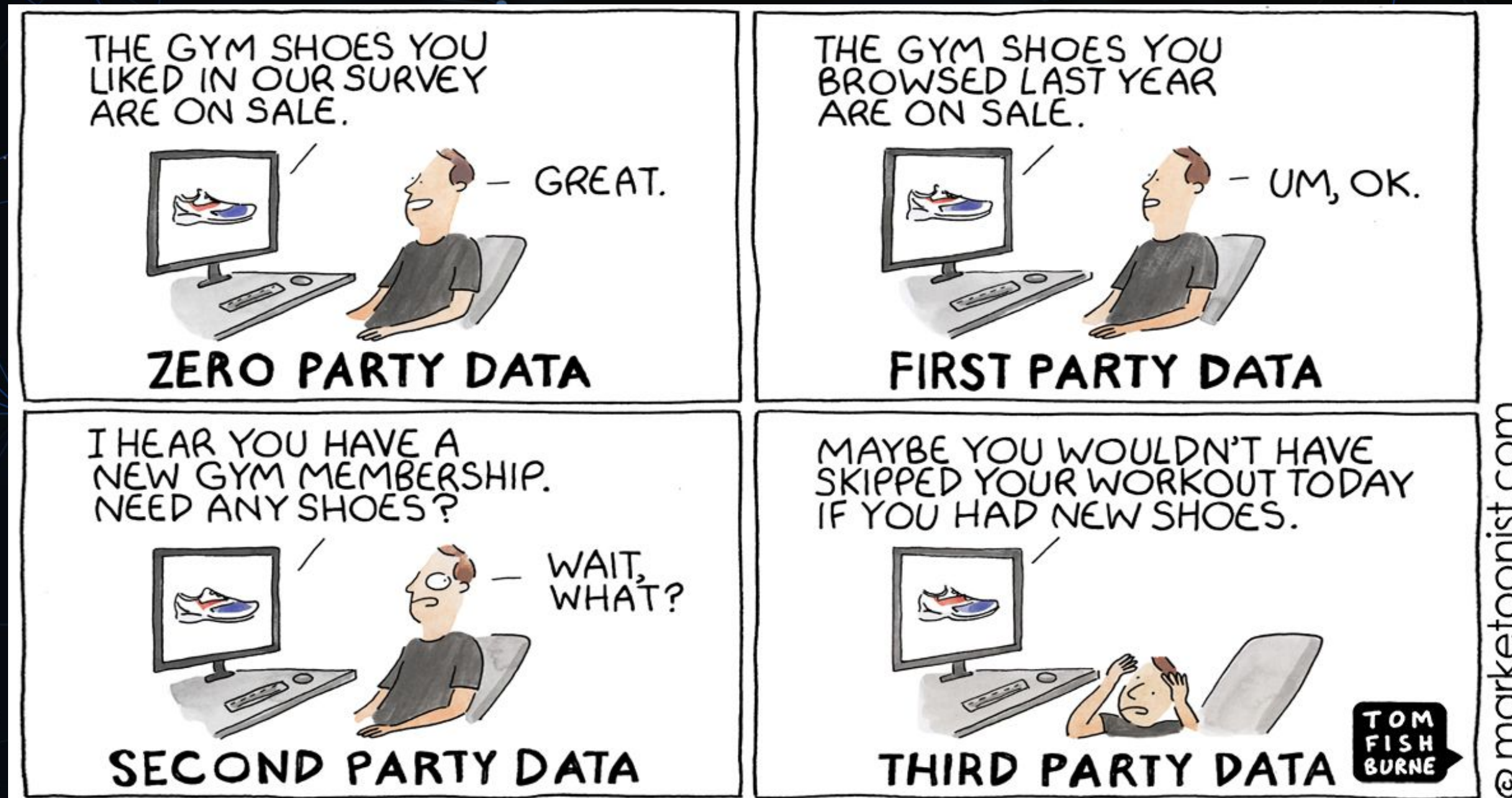
Our website uses cookies to continuously improve your experience and display content geared to your interests. By clicking the "Accept All" button, you consent to activate all the cookies or the "Decline All" button to reject all the cookies except essential cookies. You can also visit the "Manage Preference" to provide the controlled consent.

Accept All

Decline All

Manage Preference

DIFFERENT FLAVORS OF COOKIES





FIRST-PARTY COOKIES



STRICTLY NECESSARY COOKIES

Essential for the website to function and for you to use its features

PREFERENCES / FUNCTIONALITY COOKIES

Allow a website to remember your preferences to personalize your experience

STATISTICS / PERFORMANCE COOKIES

Gather information about how you interact with a website to make it better

MARKETING COOKIES

Track your behavior across websites to deliver targeted advertisements





MORE COOKIES



PERSISTENT COOKIES

Long-lasting and stored on your device, even after browser is closed

SESSION COOKIES

Temporary data while navigating a website, and deleted when the browser is closed or session expires

ZOMBIE COOKIES

Persistent tracking cookie that is difficult to delete and can regenerate even after removal attempts



TRACKERS TRACKING YOU

**WEB
BEACONS**



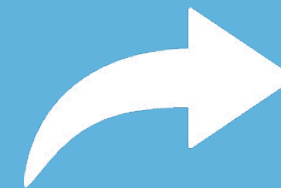
FINGERPRINTING



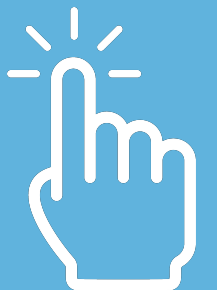
**IP-BASED
GEOLOCATION**



**REFERRER
DATA**



**REPLAYS /
HEATMAPS**



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THE DARK SIDE



HOW CAN YOUR PUBLIC DATA BE MISUSED FOR EVIL?

Bullying

Catfishing

Data mining and profiling

- Invasive
- Personal data used without consent

Discrimination and bias

Doxxing

Identity theft and fraud

Physical harm and harassment

Ransomware

Reputation damage

Social engineering attacks

- Phishing
- Spear phishing
- Whaling
- Smishing
- Vishing



AI-POWERED DATA MISUSE

AI-enhanced deception

Crafting convincing scams (e.g., phishing)

AI-aided impersonation

Building comprehensive profiles

Deepfakes

Manipulating images & videos to create

AI-driven content

Manipulate or generate fake reviews, comments, or social media posts

AI-assisted manipulation

Tailored attacks, manipulative personas

AI for large-scale theft

Target identification



Dear [Employee Name],



I hope this email finds you in good health and high spirits. I am writing to you today with a surprise that I believe will lift your spirits even higher.

As you may be aware, our company has been experiencing financial success of late. I am pleased to announce that this success has allowed us to grant our hard-working employees a pay raise. You, [Employee Name], are one of those employees.

Attached to this email, you will find a document detailing the specifics of your raise. Please review it at your earliest convenience and do not hesitate to reach out to me with any questions.

Your hard work and dedication to our company have not gone unnoticed, and I am thrilled to be able to recognize your contributions in this way.

Once again, congratulations on your pay raise. Keep up the great work.

Best regards,

[Your Name]



At the end of the day, it's not going to matter to us if something was written by an AI or not. We still need to understand it for what it is, not for what wrote it.

— Andy Patel, Researcher, WithSecure



BEST PRACTICES FOR PROTECTING YOUR PUBLIC DATA

REVIEW SETTINGS

Regularly review and adjust your privacy settings across browsers, apps, social media, etc.

SHARE MINDFULLY

Limit sharing and access to only what you would want to be publicly available

USE PASSPHRASES

Turn your passwords into passphrases and enable two-factor authentication

APPLY UPDATES

Keep OS, software and apps up-to-date with the latest security releases

EDUCATE YOURSELF

Stay informed about emerging threats and scams as well as developments in data privacy laws/legislation

DISPOSE SECURELY

Properly shred or destroy your data securely to prevent physical access to your data

SECURE COMMUNICATIONS

Be cautious with public Wi-Fi networks, use a VPN, and even secure messaging

MONITOR DIGITAL FOOTPRINT

Keep an eye on your online presence to see what information is publicly available about you

BACKUP DATA

Perform regular data backups to safeguard your public data



THANK YOU!

Be proactive in managing your
online presence and cautious
about what data you share publicly!

RESOURCES

EFF | Privacy

- <https://www.eff.org/issues/privacy>

Opt-Out Guides

- <https://joindeleteme.com/blog/opt-out-guides/>
- <https://privacyrights.org/data-brokers>

Look for and remove personal information from Google

- <https://support.google.com/accounts/answer/1228138?sjid=18039433385525856187-NA>

The Scrap Value of a Hacked PC

- <https://krebsonsecurity.com/2012/10/the-scrap-value-of-a-hacked-pc-revisited/>
- <https://krebsonsecurity.com/2013/06/the-value-of-a-hacked-email-account/>

RESOURCES

How are Companies Using Your Social Media Data?

- <https://www.security.org/blog/how-much-would-you-sell-your-social-media-data-for/>

What Is your Personal Data Worth? A Survey

- <https://simpletexting.com/blog/personal-data-value/>

Generative AI Could Revolutionize Email—for Hackers

- <https://www.wsj.com/articles/generative-ai-could-revolutionize-emailfor-hackers-5a8c725c>

The Fight for Privacy for Hackers by Danielle Keats Citron

- <https://www.daniellecitron.com/the-fight-for-privacy-protecting-dignity-identity-and-love-in-our-digital-age/>