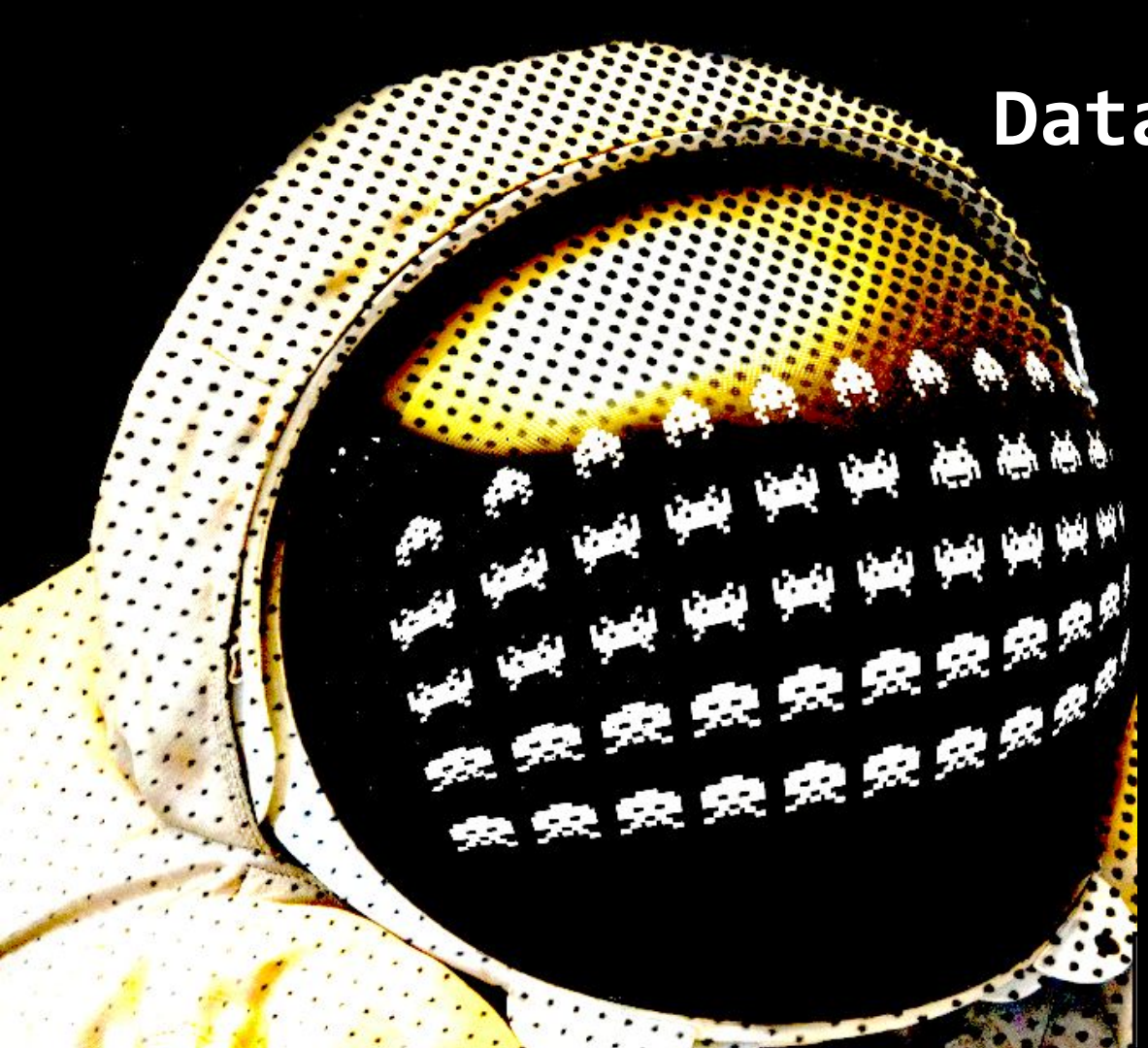

Data Access Rights Exploits Under New Privacy Laws

Amber Welch

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sysad.org/posts/fdaad6403aeac112

Hi!

I’m Amber Welch, and I evaluate corporate privacy programs.


Today we'll cover:
Data subject requests
DSR exploits
Defense strategies
NASA
https://www.nasa.gov/feature/10-questions-about-the-2017-astronaut-class

Data Subject Requests


bit.ly/2DMbzFP

Four exploitable rights

- Access
- Modification (rectification)
- Erasure (deletion/to be forgotten)
- Portability

New challenges

- Metadata and indirect identifiers
- Household and device data
- Linkable data
- Controllers without control


← Meet Mario Costejo Gonzalez.
He sued Google Spain.
Google
Packard Bell
bit.ly/2Va2pgZ

What is personal data?

Everything

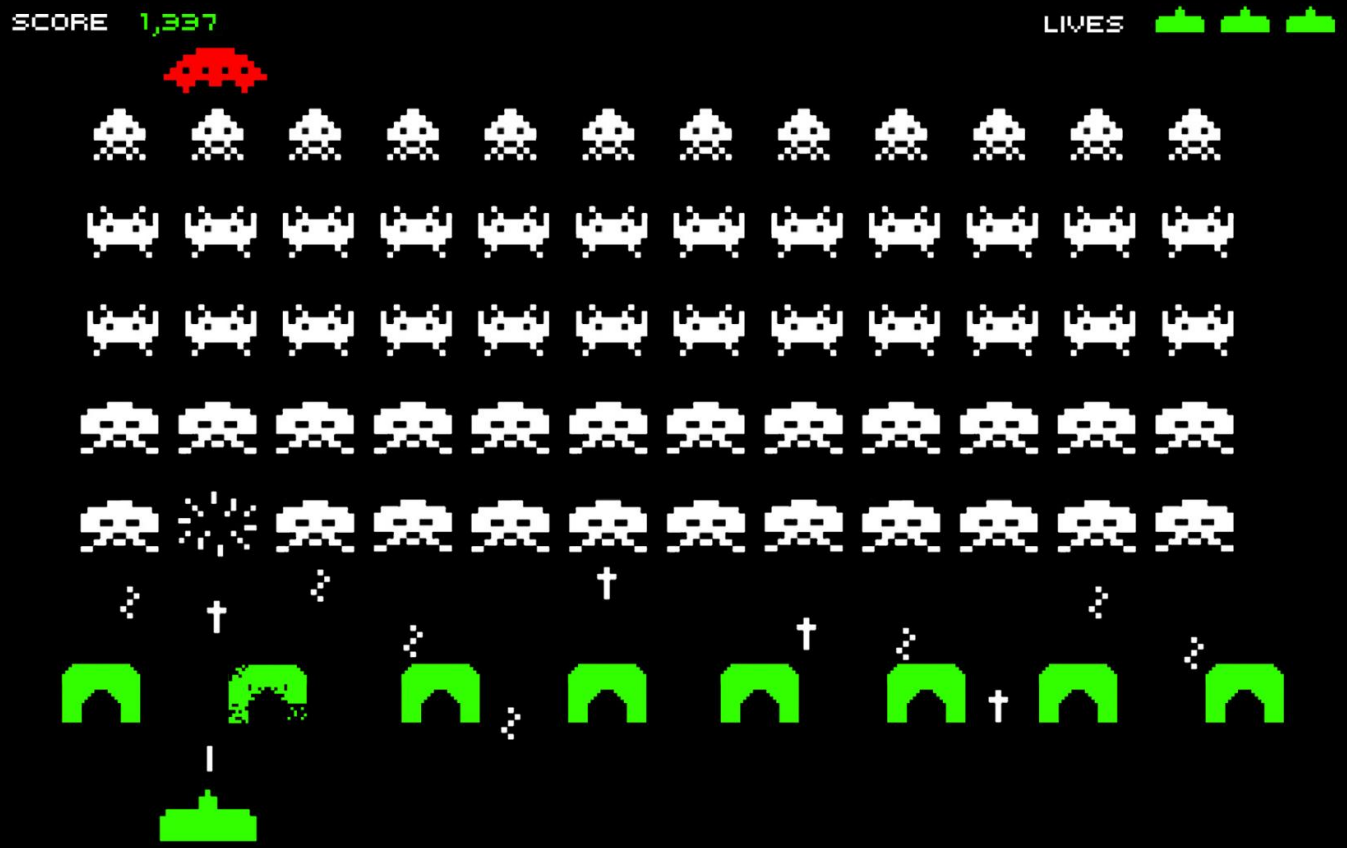
Corporate prep (or not)

- Panic and FUD
- Provide all the data
- Outsource to legal firms
- Fear non-compliance more than a breach

Manual vs. Automated

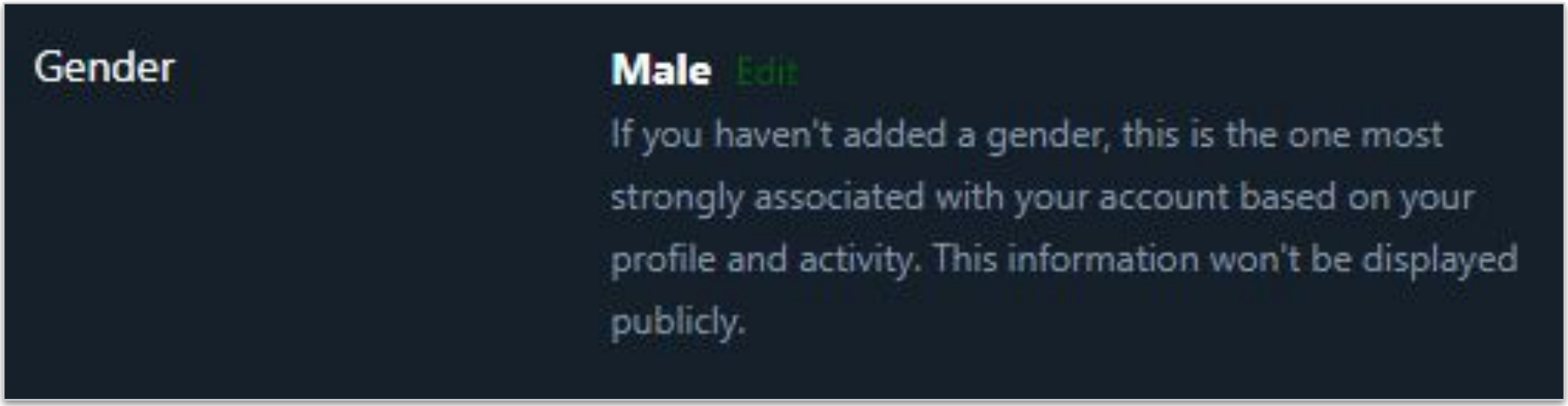
DSR Exploits

Legal DDoS




Meet James Titcombe. →
His DSR cost £240,000.
Joshua's Story
James Titcombe
http://www.cumbrialife.co.uk/james-titcombe/

Twitter thinks I’m a man.
Let’s ask the DPO why!



Twitter paid a lawyer to write this.

QUESTIONS AND COMMENTS

Answer questions about your report.
3/22/2019 5:06 PM

Hello Amber,

Thank you for contacting us.

All users can choose to provide their gender in their account settings (https://twitter.com/settings/your_twitter_data). However, when you choose not to add a gender, we infer your gender as a signal to make sure we are providing the best content we can for you. Your inferred gender is the one most strongly associated with your account based on your profile and your activity. As indicated in our Privacy Policy (https://twitter.com/en/privacy), you can use the Your Twitter Data feature to review information that Twitter has inferred about you such as your gender and you may change your gender selection at any time.

The most current version of Twitter's Privacy Policy has been effective since May 25, 2018. People who had used our services on or after that date, agreed to these revisions.

Please note that your ticket will be closed after 14 days if we do not receive any further communication from you.

Sincerely,

Twitter Office of Data Protection

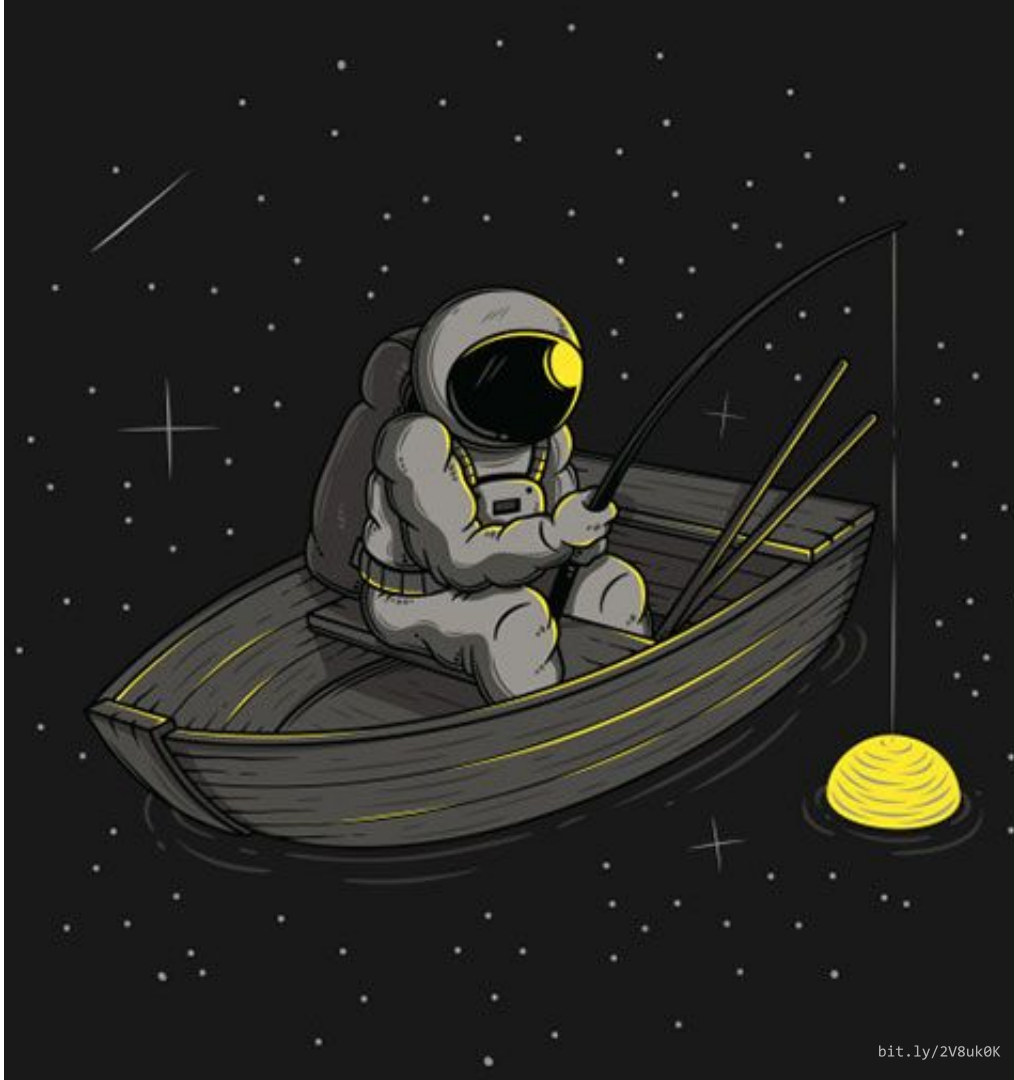
Do you hate your Insurance Provider?

We'll help you send them a GDPR Data Access Request designed to waste as much of their time as possible. They are legally required to respond to your request within 30 days! 🔥

www.shipyourenemiesgdpr.com

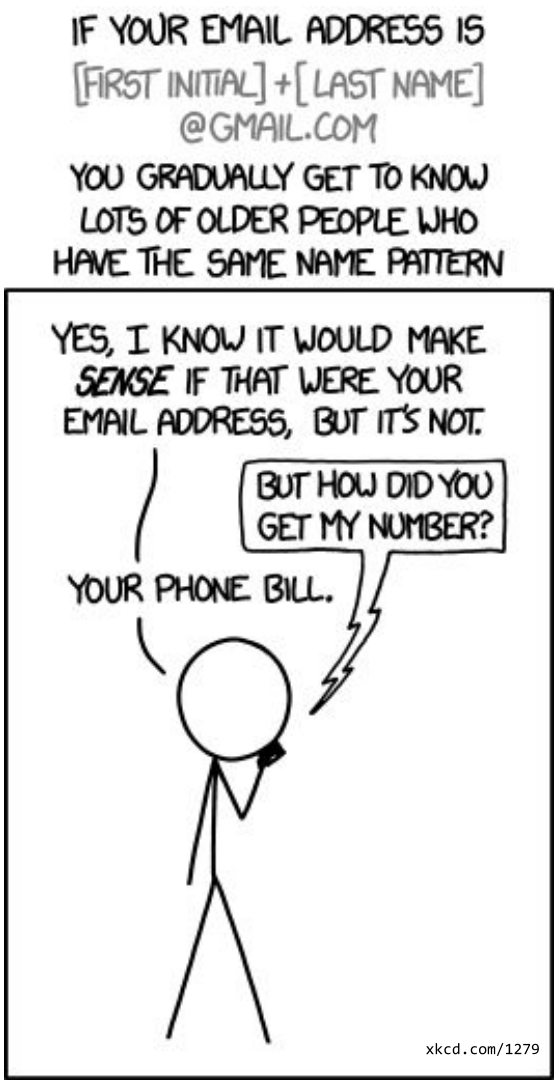
Phishing tactics

- Ask for updates
- Ask for Privacy Officer
- “I can’t access that email”
- Try to ID with other data
- Escalate with family names
- Escalate to sensitive data
- Use common names



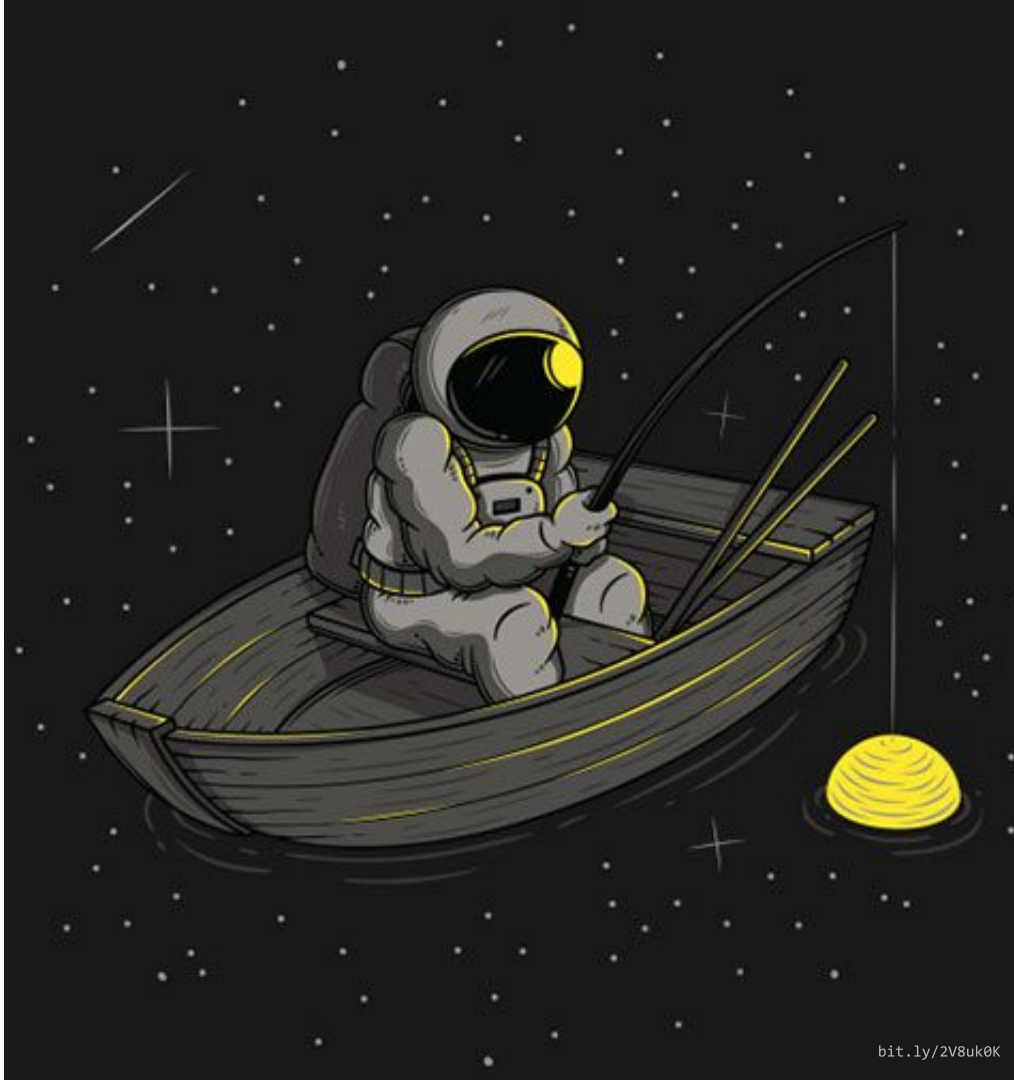
“What’s in a name?”

-Shakespeare,
security researcher



Phishing uses

- Confirm profile data
- Match users across datasets
- Learn new data
- Spearfishing and CEO fraud



Other bad actors

- Guerilla marketing

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- Competitor research

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- Disgruntled employees

Other bad actors

- Guerilla marketing
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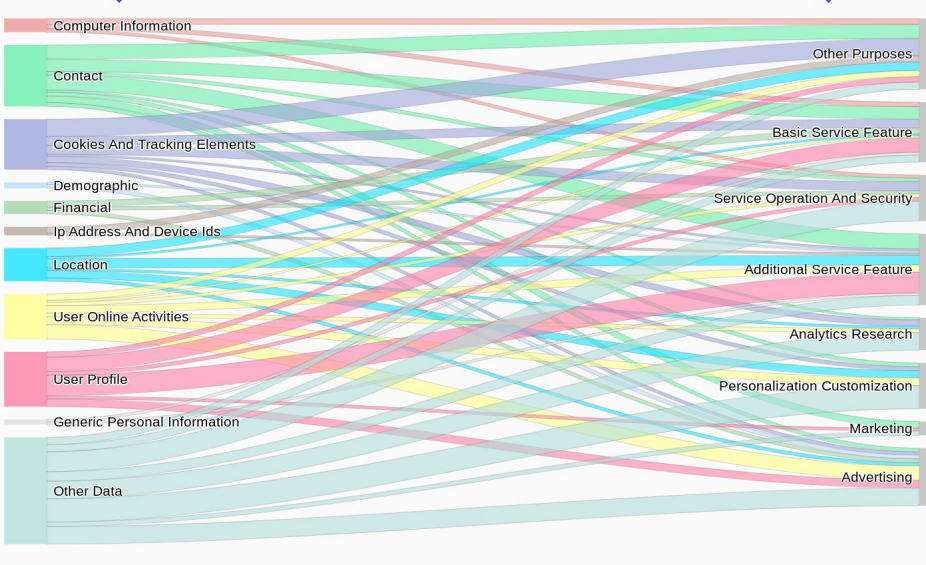
- Disgruntled employees
- Lawyers pressuring companies to settle

Other bad actors

- Guerilla marketing
- Competitor research
- Disgruntled employees
- Lawyers pressuring companies to settle
- Intimate partner violence, stalking, and harassment

Evaluating privacy policies

- Vague or old privacy policy
- No privacy or security officer
- Pribot.org for policy diagram

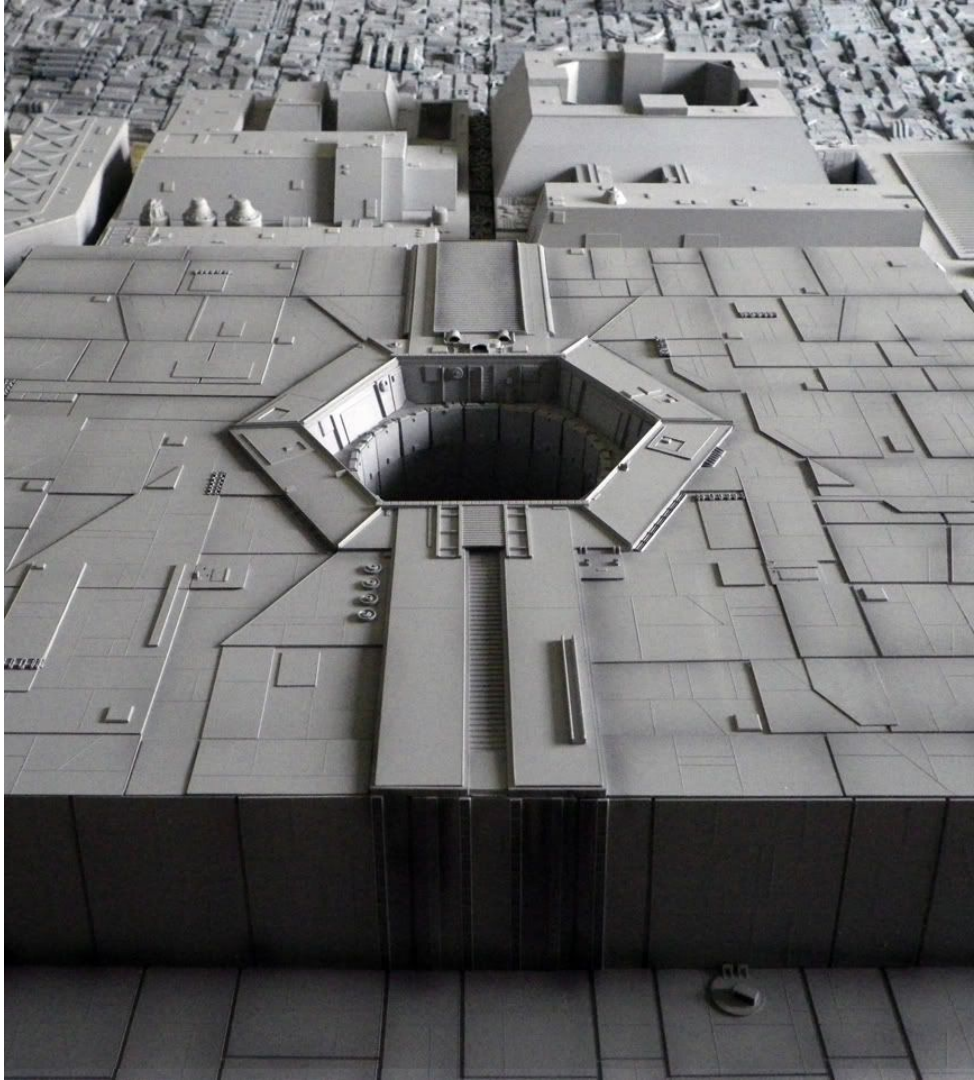


^ Strong policy

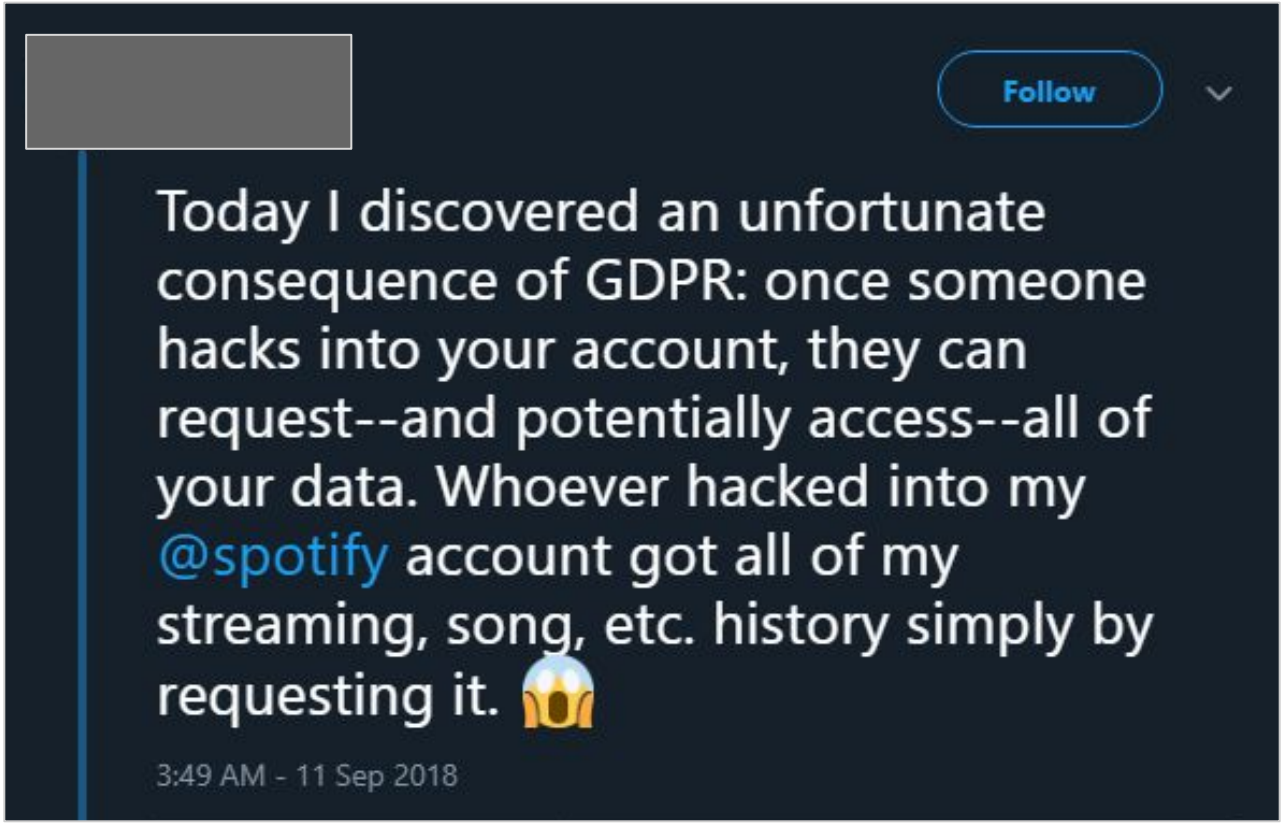
< Weak policy

Weak targets

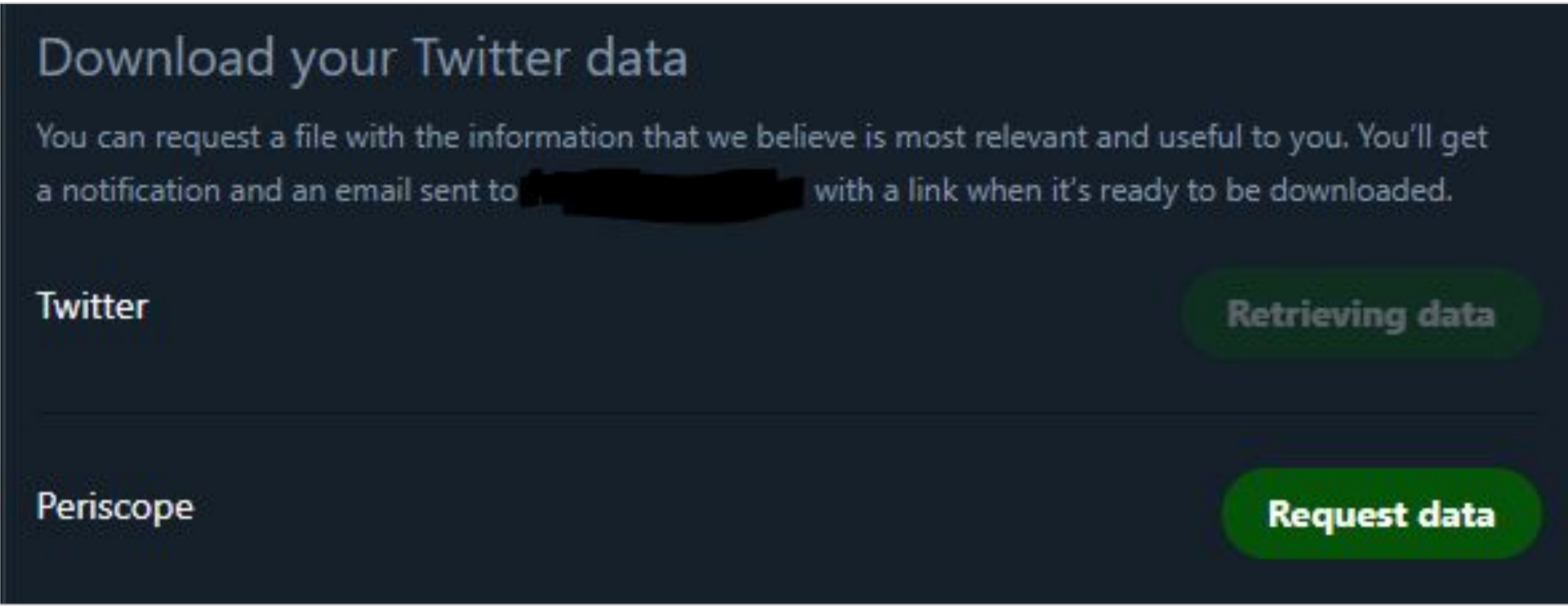
- Lots of indirect identifiers
- International charities
- Social media startups
- SMBs with minimal regulation
- Apps without 2FA



Automated DSR without 2FA



Automated Twitter DSR

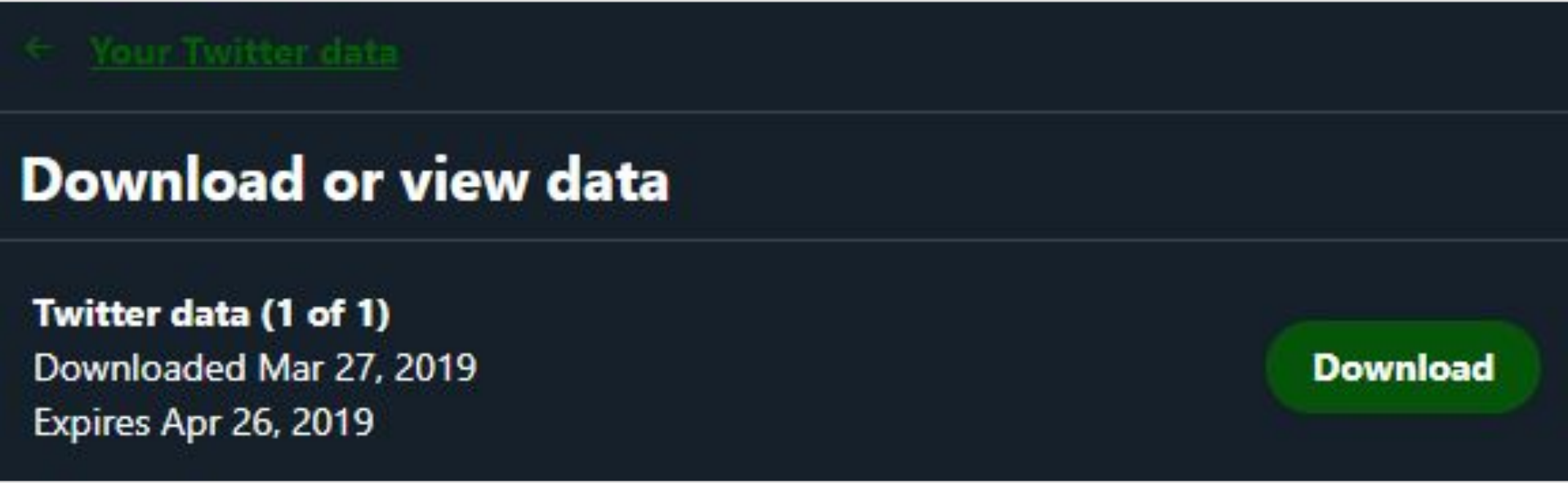


Hi Amber Welch, your Twitter data is ready. You have until Apr 27, 2019, 3:53:51 PM to download it before it expires. If you didn't request this information, you can ignore this email.

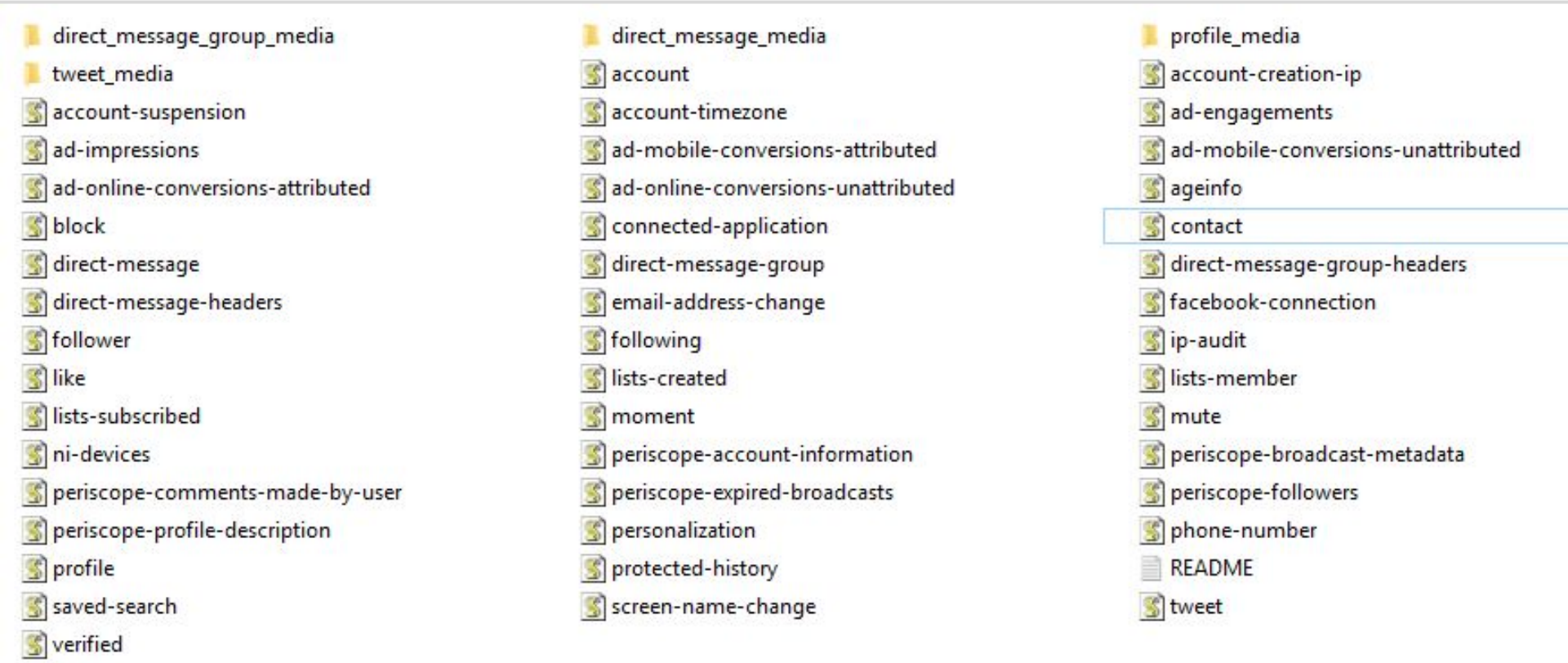
Download

Help

Twitter data download



Twitter data export



“Subject access rights would probably increase the incidence of personal records being accidentally or deliberately opened to third parties”

-Lindop Committee on Data Protection, 1978

Defense Strategies

Three DSR threats

- Invasive identity checks
- Denial of access
- Data breach

bit.ly/2I1xzxy

Common DSR process

ID challenges

- Linking data with one person
- Can’t require an account
- Can’t collect excessive information
- ID can’t be “burdensome”
- GOV.UK Verify is only 51% successful
- ID documents are just extra sensitive information

You don’t need to see his identification

Only two good ID methods

- Confirm ID as already known by the organization
- Confirm 2+ transactions:
  - When did you last stay at our hotel?
  - What are the last 4 digits of the card on file?

bit.ly/2Vcd5LX | bit.ly/2pjH8PK

Manual DSRs

- Graduated ID requirements
- Assume ID #s are compromised
- Secure transfers
- NIST Digital Identity Guidelines (SP 800-63)

Automated DSRs

- Re-authenticate the session
- Pending DSR UI banner
- Email notifications
- Campaign for 2FA

bit.ly/2wiFq4x

Red flags

- Requesting a mail copy to a new address

Red flags

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- Common names, especially if deduplicated

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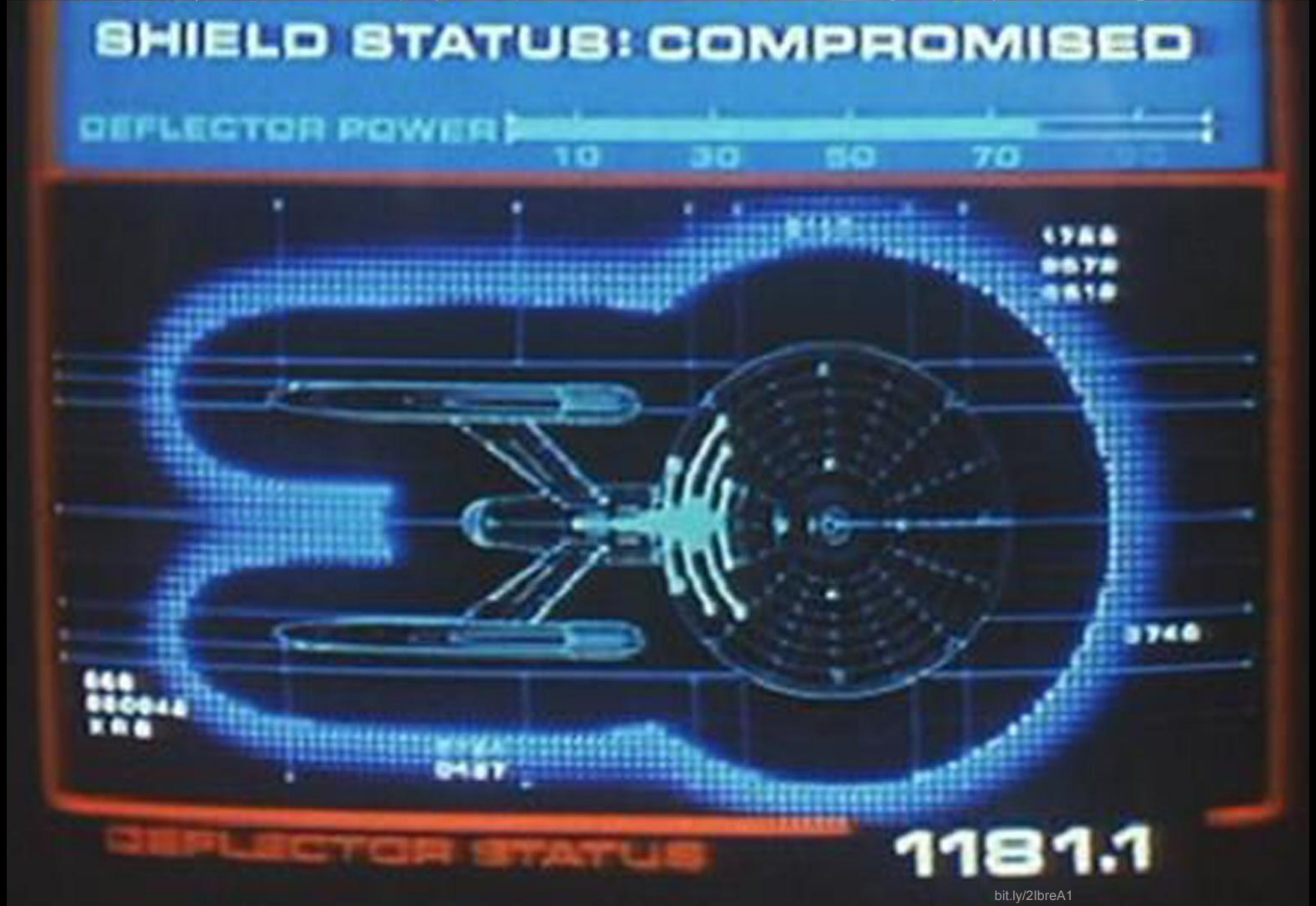
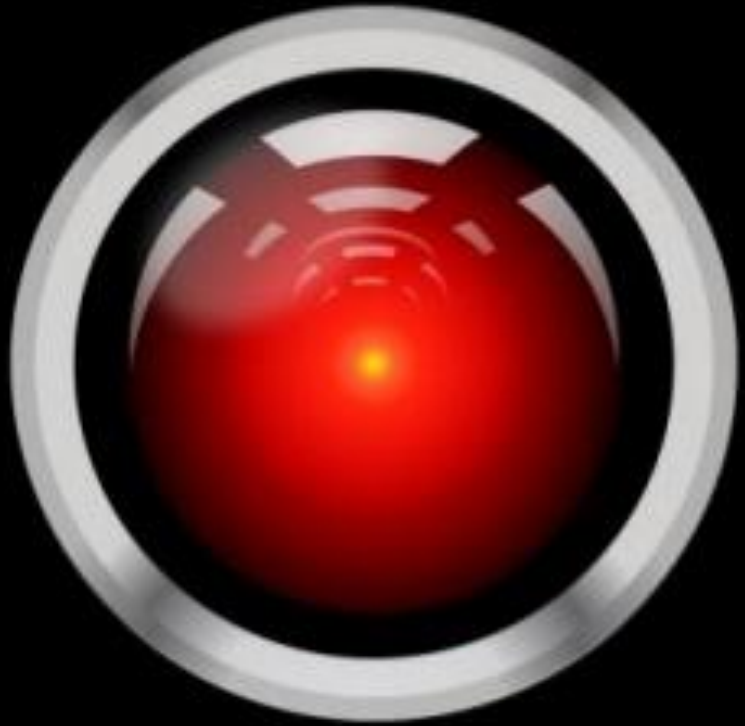
- Requests with multiple associated names
- Frequent similar requests or repeated text
- Unexplained increase in DSR volume



Cat break



“I'm sorry Dave, I'm afraid I can't do that”

bit.ly/2DK4fdK

Rejecting requests

- Repetitive or abusive requests

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- Unconfirmed identity

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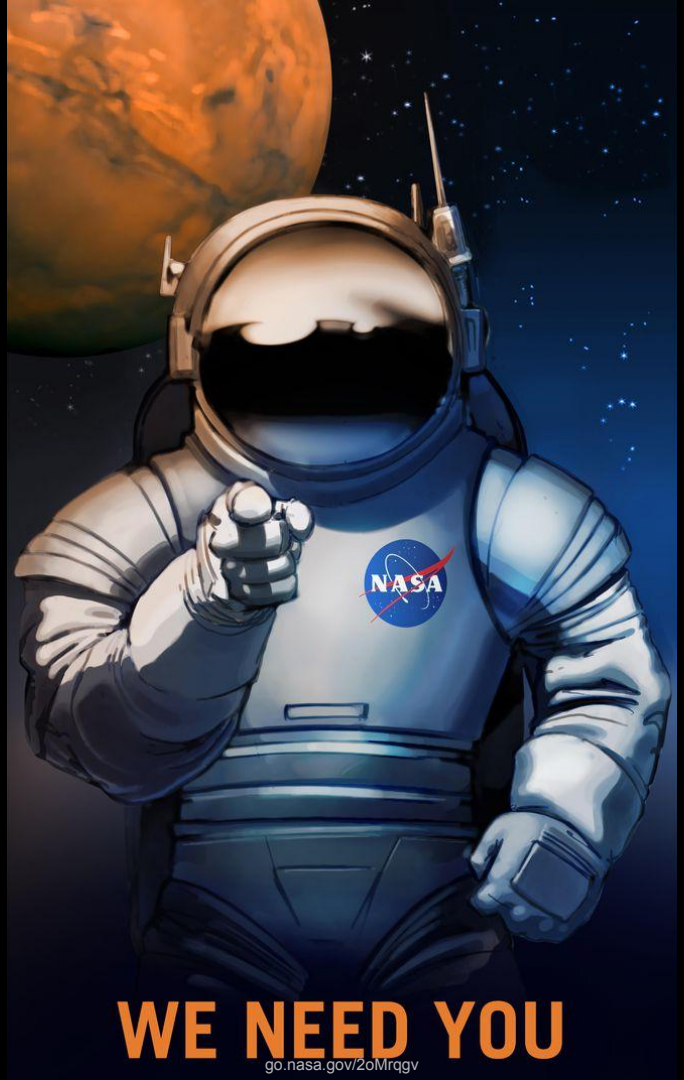
- Unconfirmed identity
- Data not clearly associated with a confirmed identity
- “Impossible” or requiring “disproportionate effort”
- Adversely affecting the rights and freedoms of others
- Portability requests not automated or feasible


NASA
WE NEED YOU
go.nasa.gov/2oMrqgv

Sources

1. https://www.nwemail.co.uk/news/barrow/16447938.nursing-regulator-spent-239000-to-hide-information-on-dalton-dad/
2. https://perma.cc/S4J6-HNH4
3. https://twitter.com/jeanqasaur/status/1039435801736536064
4. https://www.gov.uk/performance/govuk-verify
5. https://doi.org/10.6028/NIST.SP.800-63-3
6. https://www.nortonrosefulbright.com/en/knowledge/publications/8f893b33/uk-court-of-appeal-allows-data-subject-access-requests-to-be-made-in-furtherance-of-litigation
7. https://hal.inria.fr/hal-02072302/document

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