

Dr Johnny Ryan FRHistS



Irish Council for
Civil Liberties

Collapse of journalism

Rise of hate & hysteria

Hidden dossiers on everyone

Manipulation of our elections

**THIS IS HOW MOST ONLINE
CONTENT IS PAID FOR...**

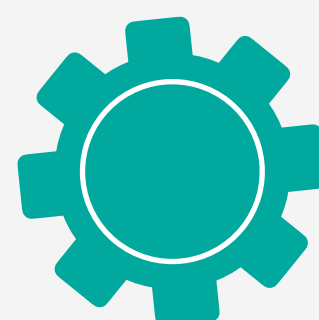
RTB

“Demand side”

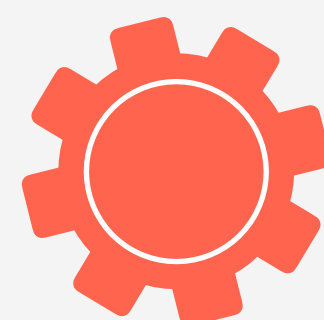
“Supply side”



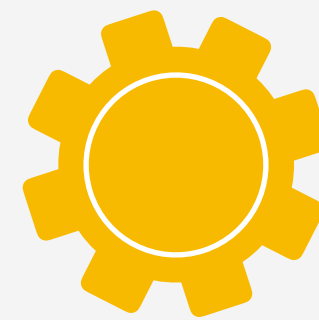
Marketer



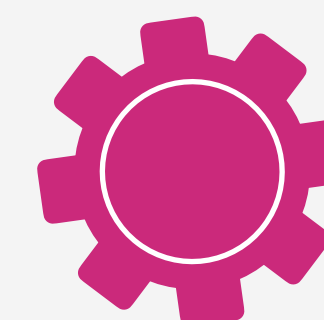
Data management
platform (DMP)



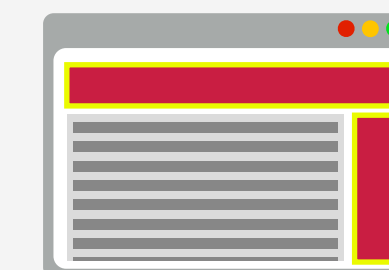
Demand-side
platform (DSP)



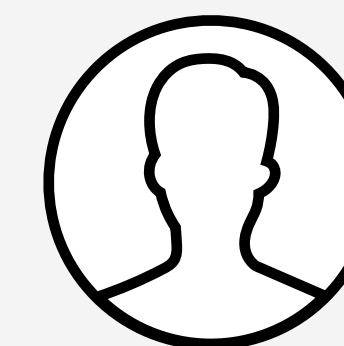
Ad Exchange



Supply-side
platform (SSP)



Site



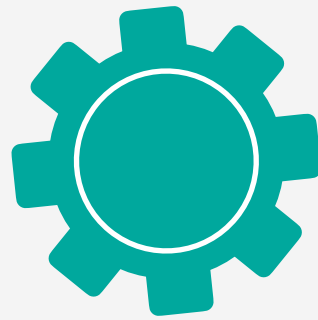
Visitor

"Demand side"

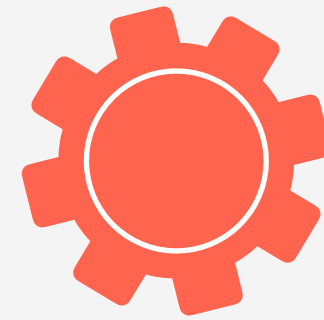
"Supply side"



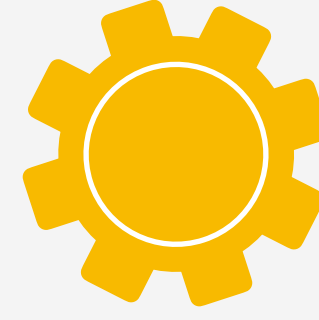
Marketer



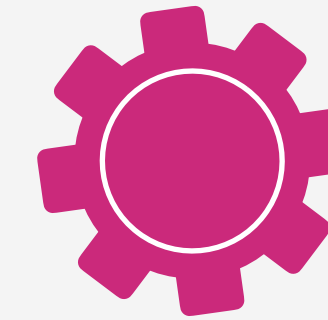
Data management
platform (DMP)



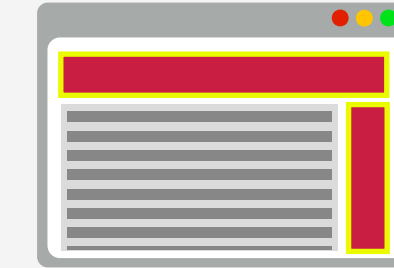
Demand-side
platform (DSP)
(10s or 100s or 1000s?)



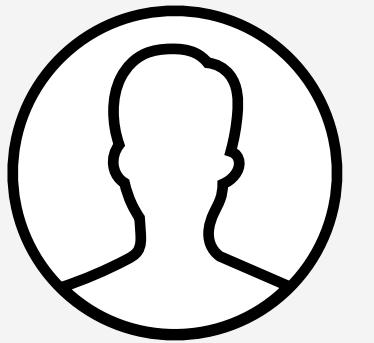
Ad Exchange
(one or many)



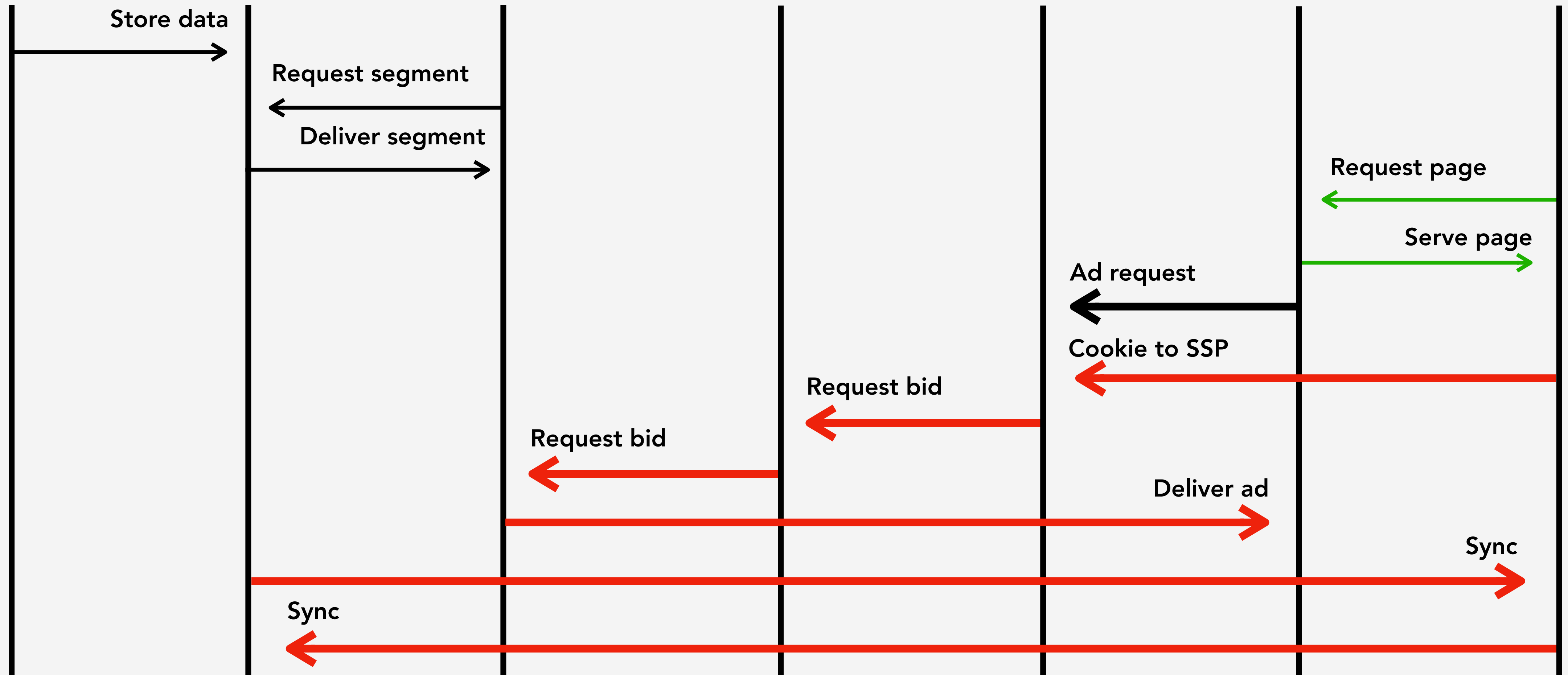
Supply-side
platform (SSP)



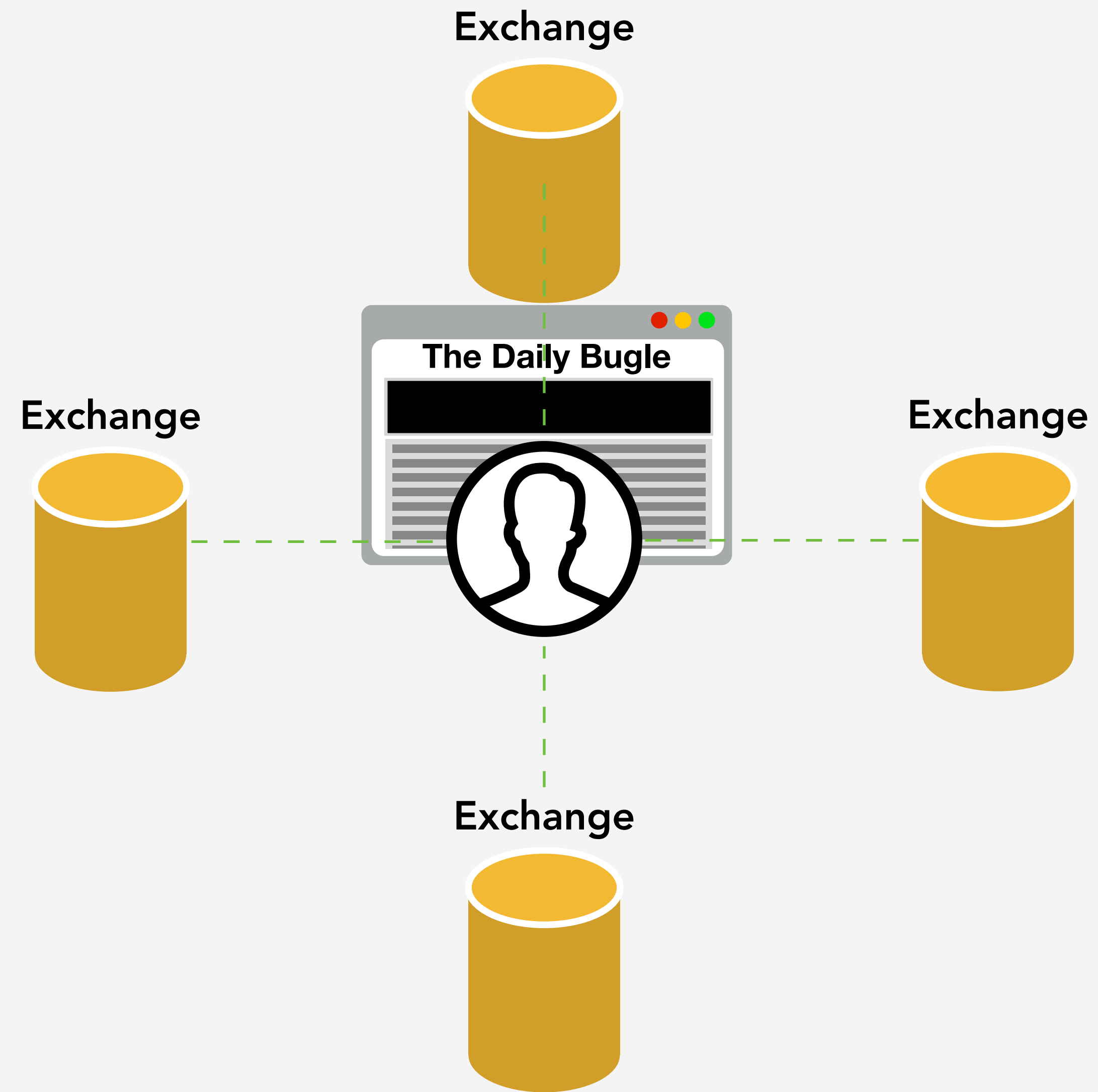
Site

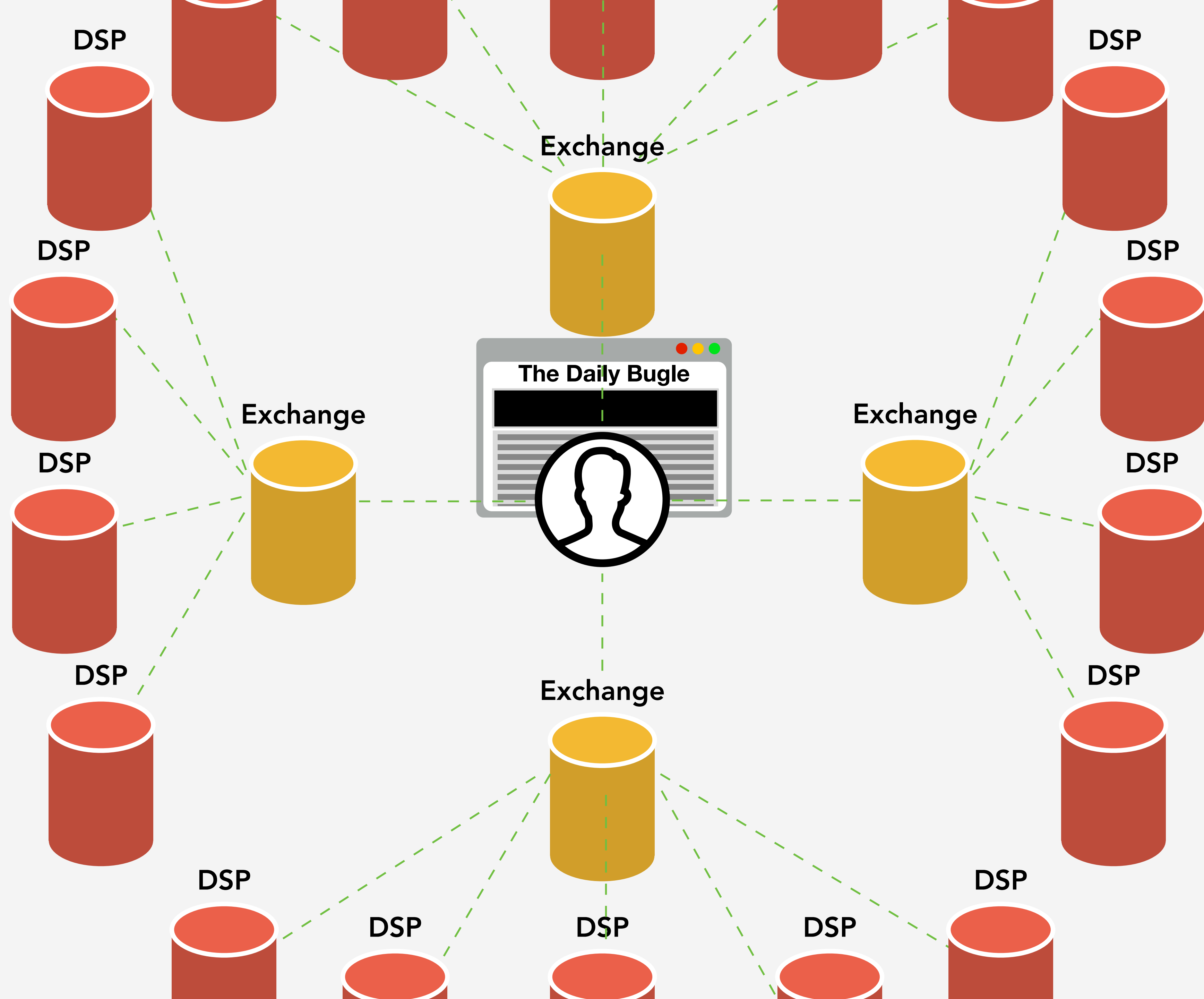


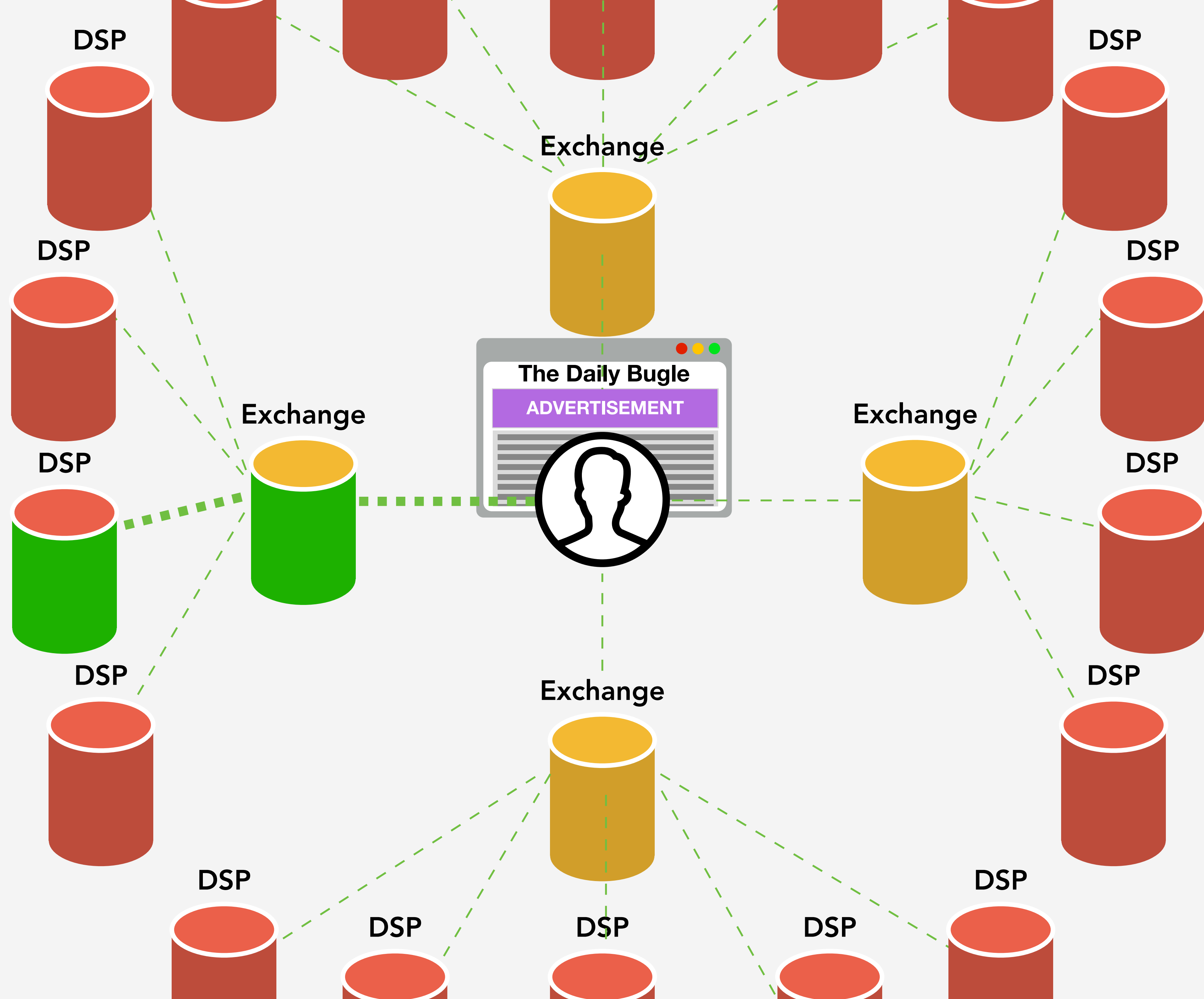
Visitor

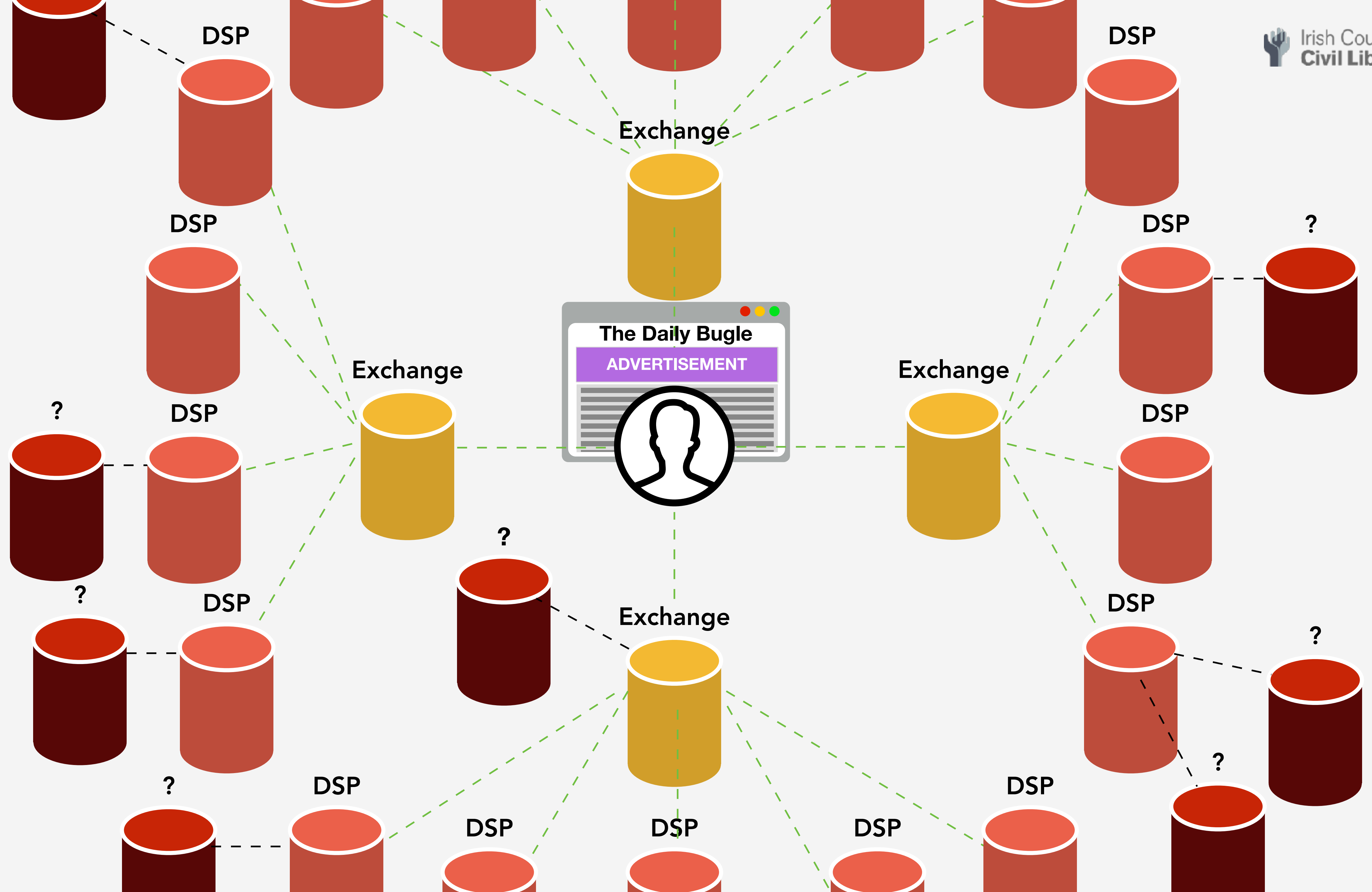


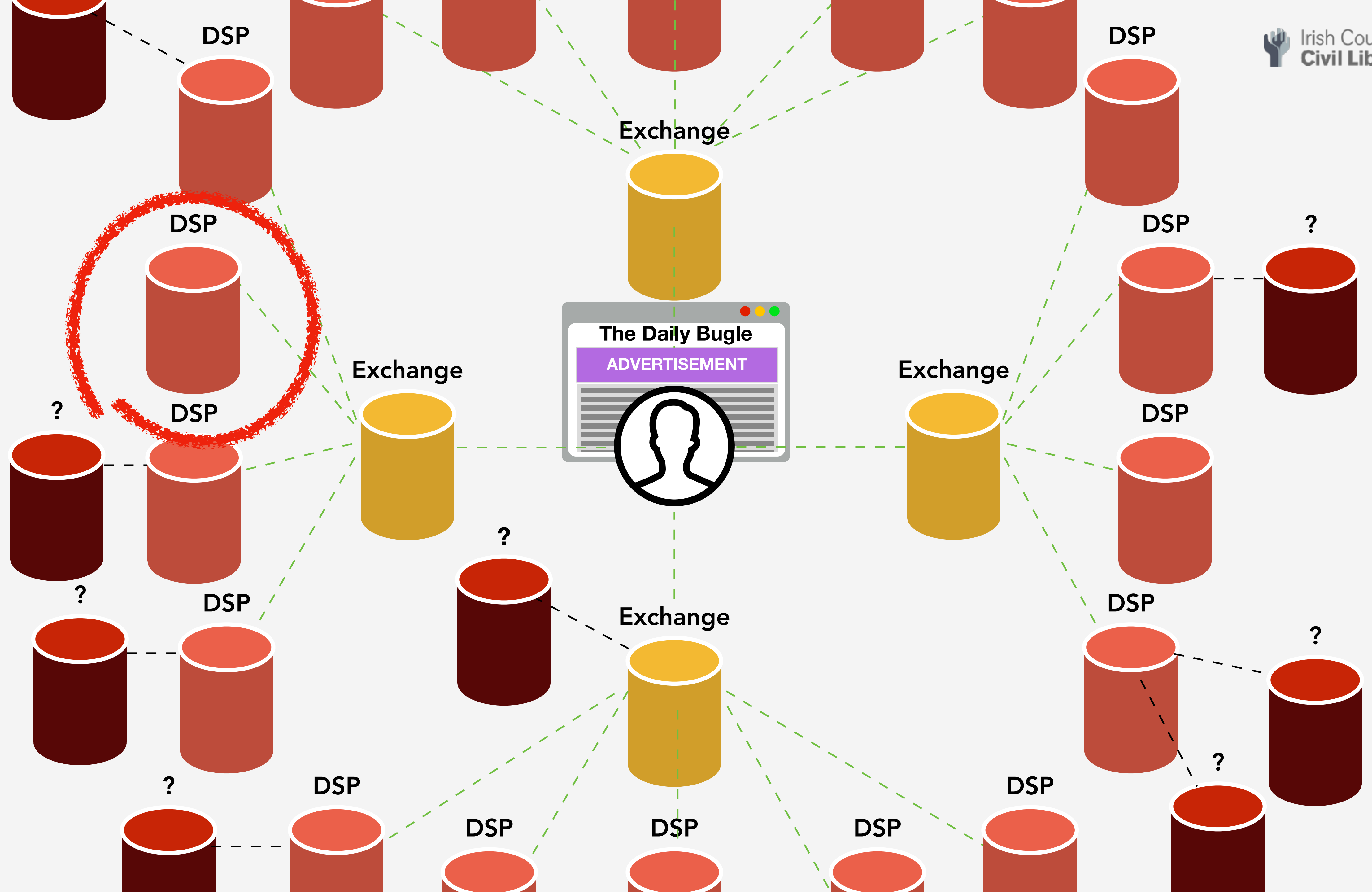


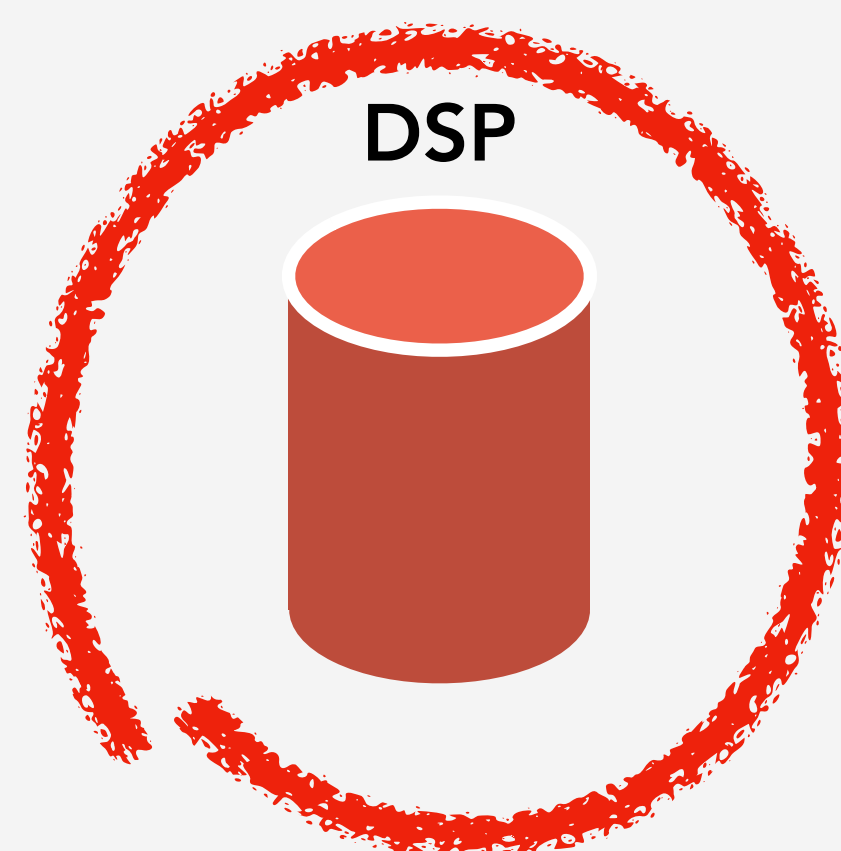












Example

Vectaury: a small DSP/DMP/
trading desk in France. €3.5M
annual turnover in 2017 (though
subsequently won a €20M
investment).

CNIL regulator caught it with
68 million illegal RTB records.

DATA LEAKAGE IN ONLINE ADVERTISING

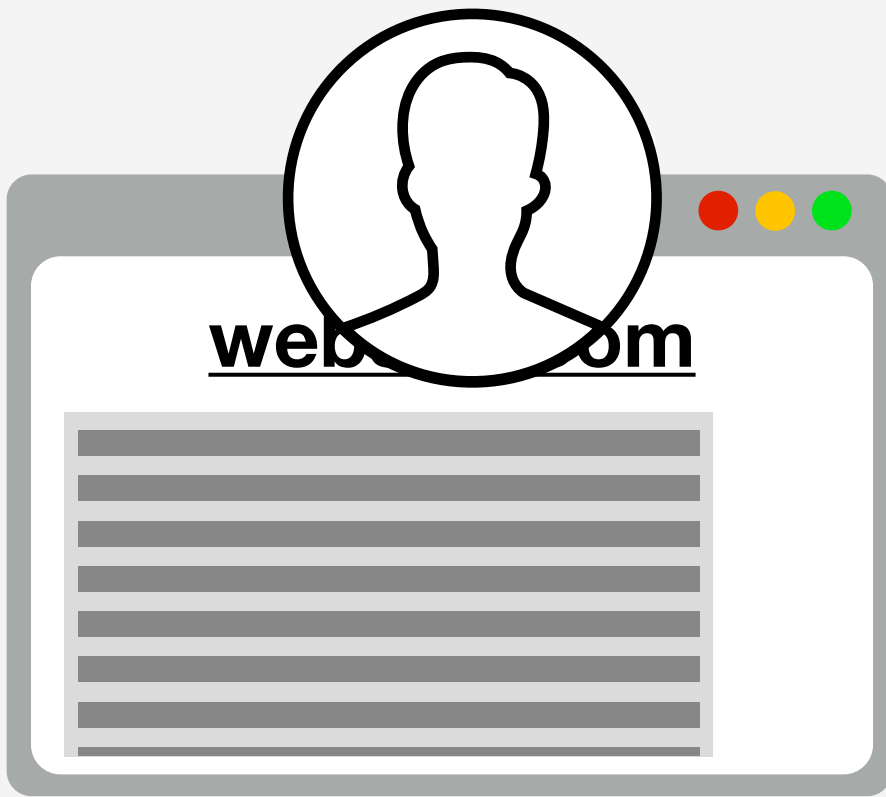
This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money

Step 1.
User requests
webpage



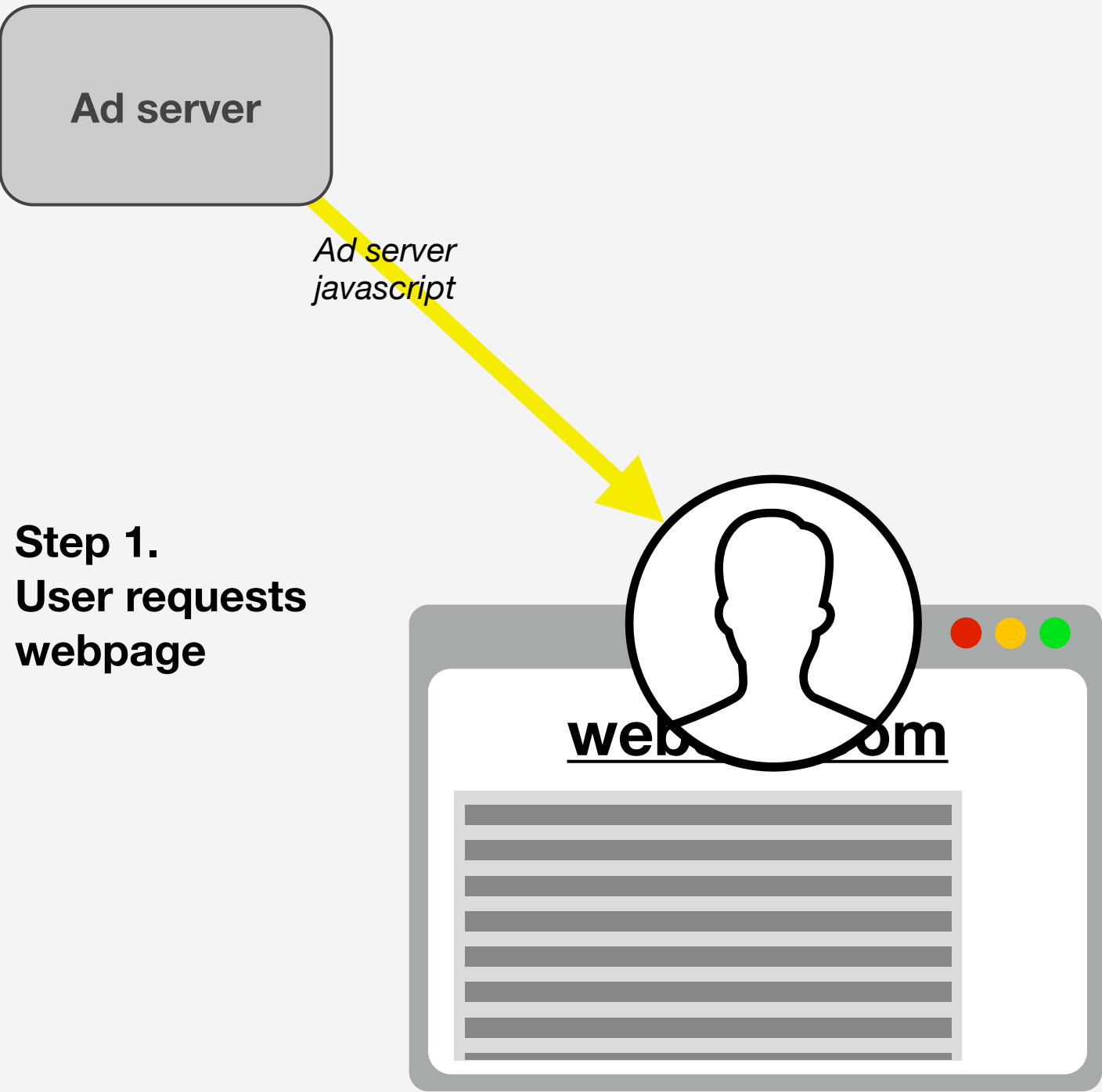
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



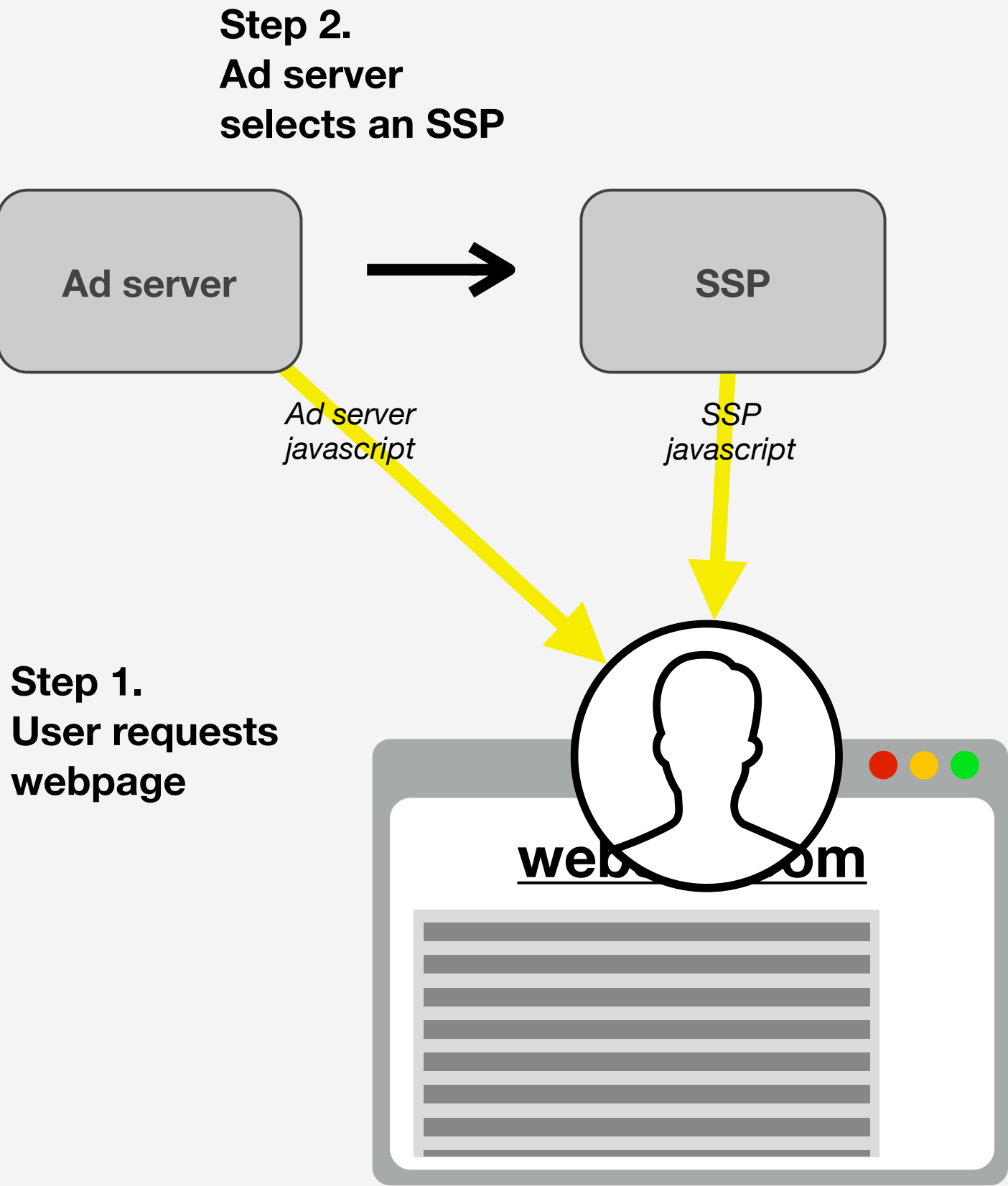
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



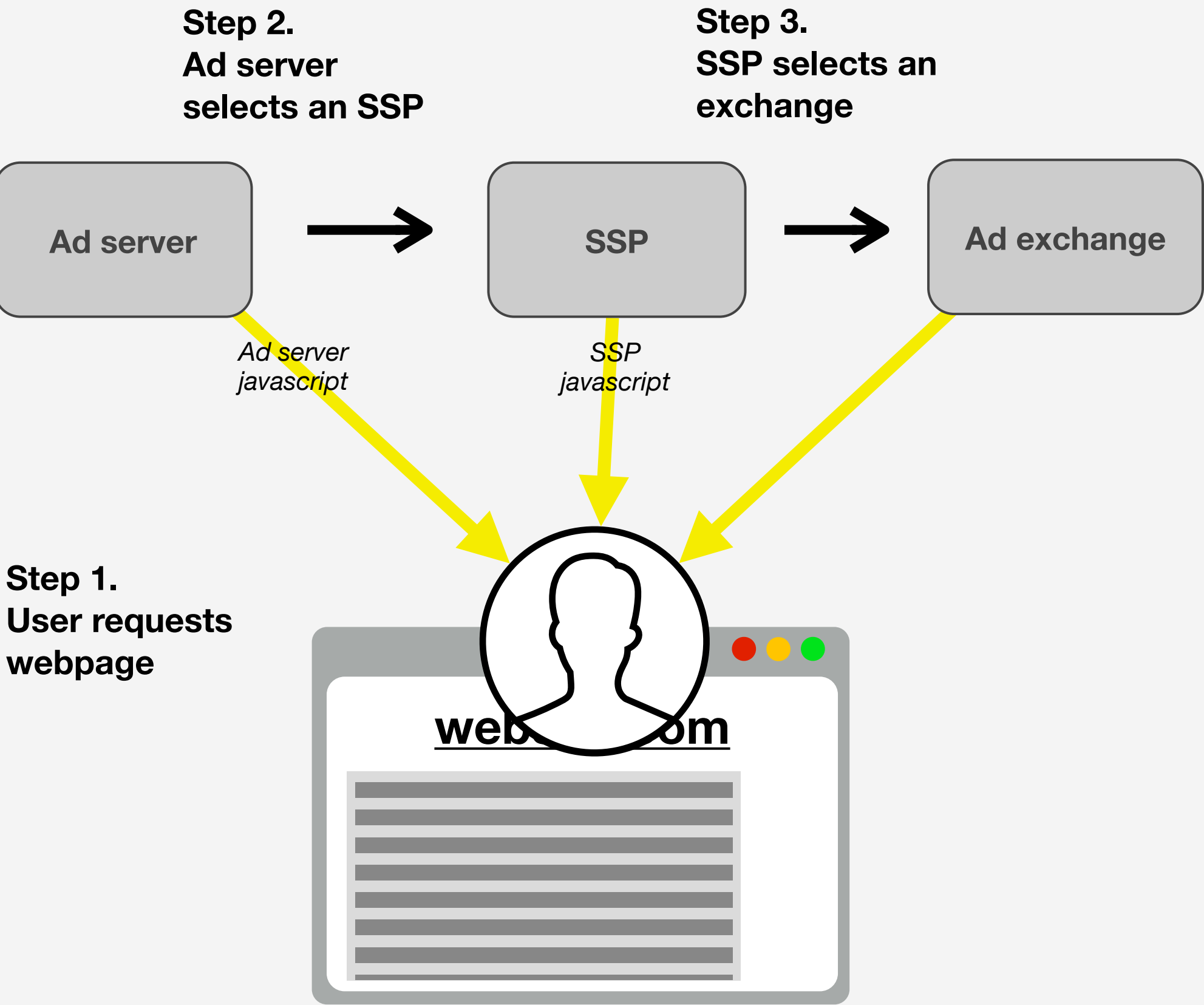
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



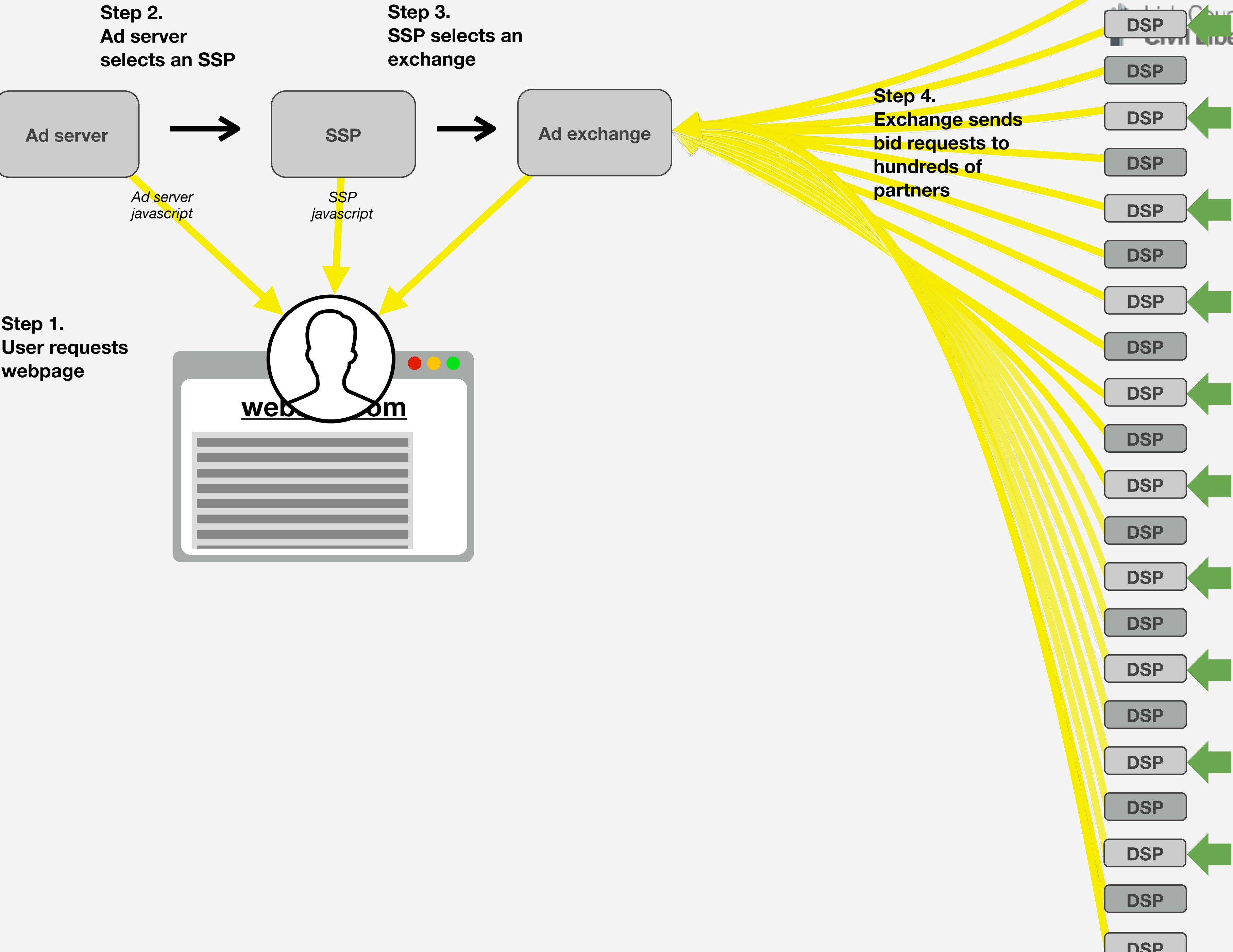
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



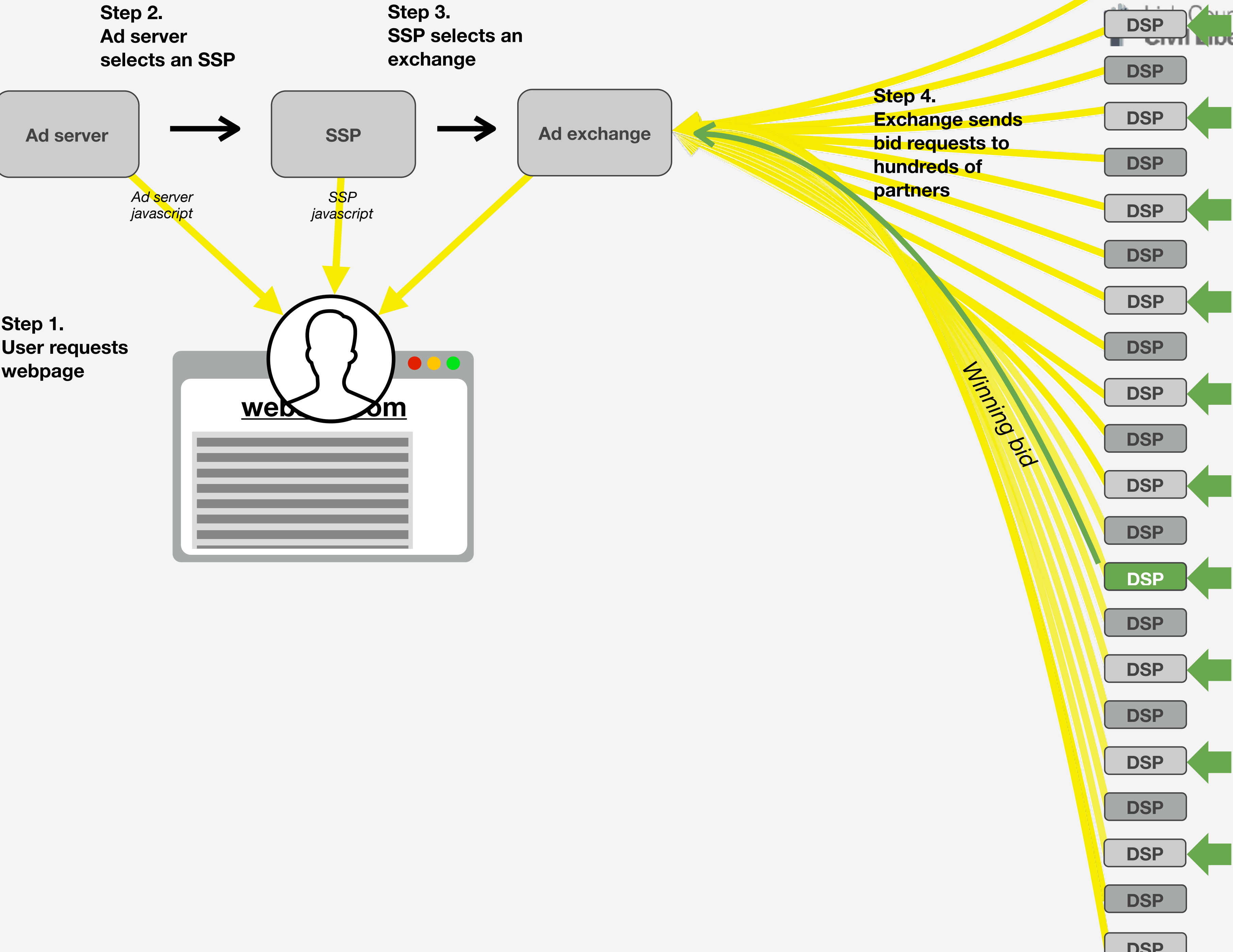
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of real-time bidding that is used in online behavioural advertising.

Legend

Channel of data leakage

Money



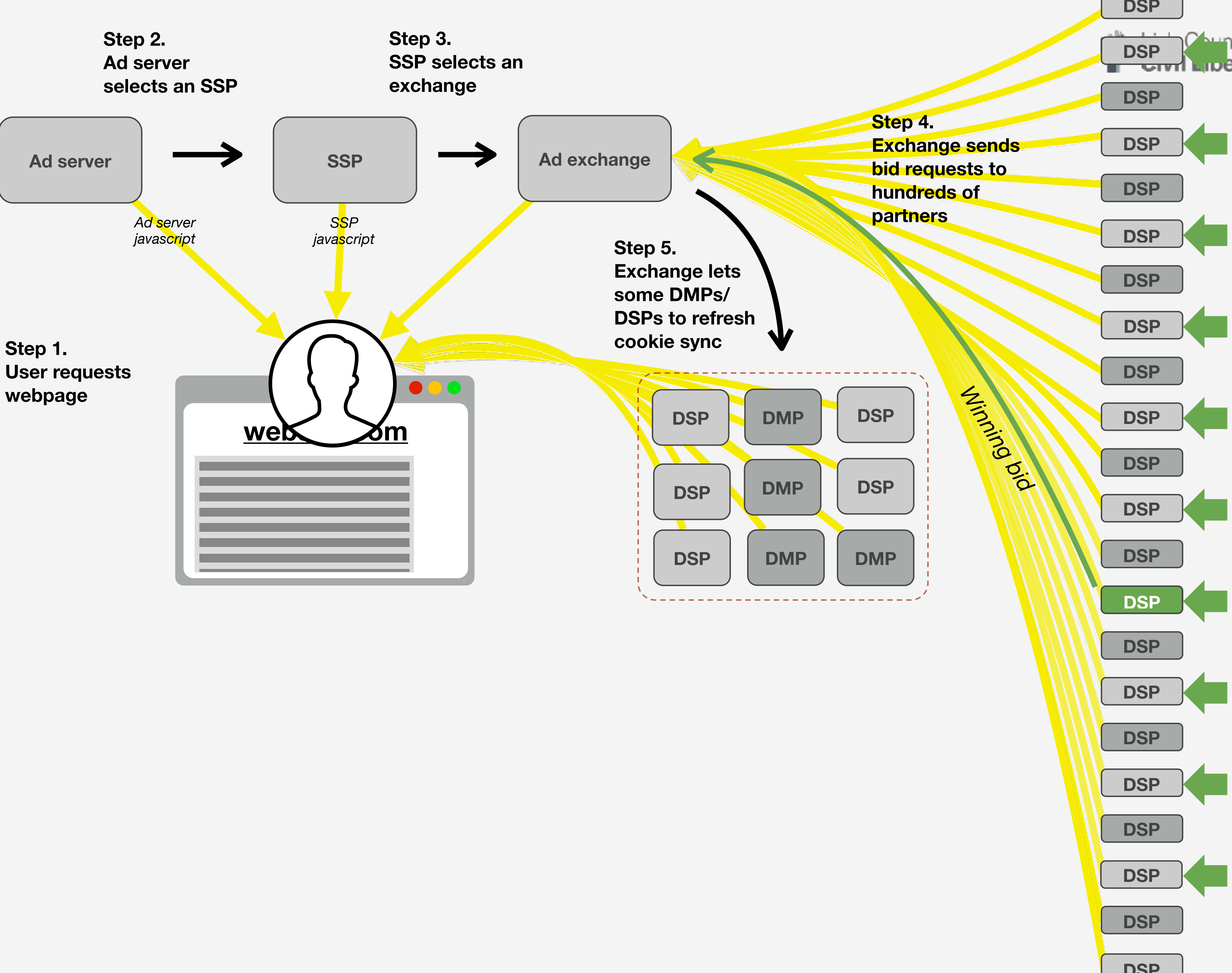
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



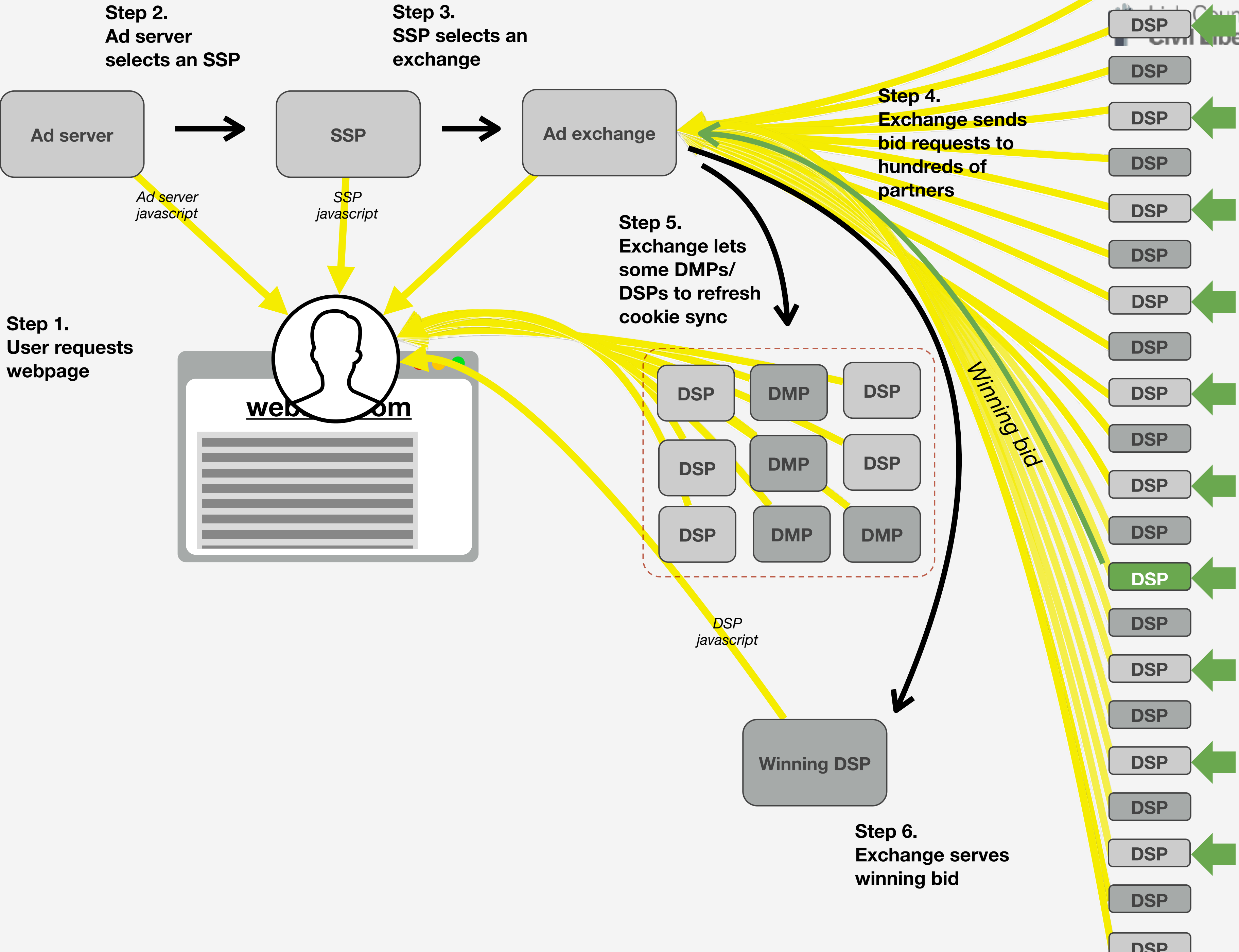
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



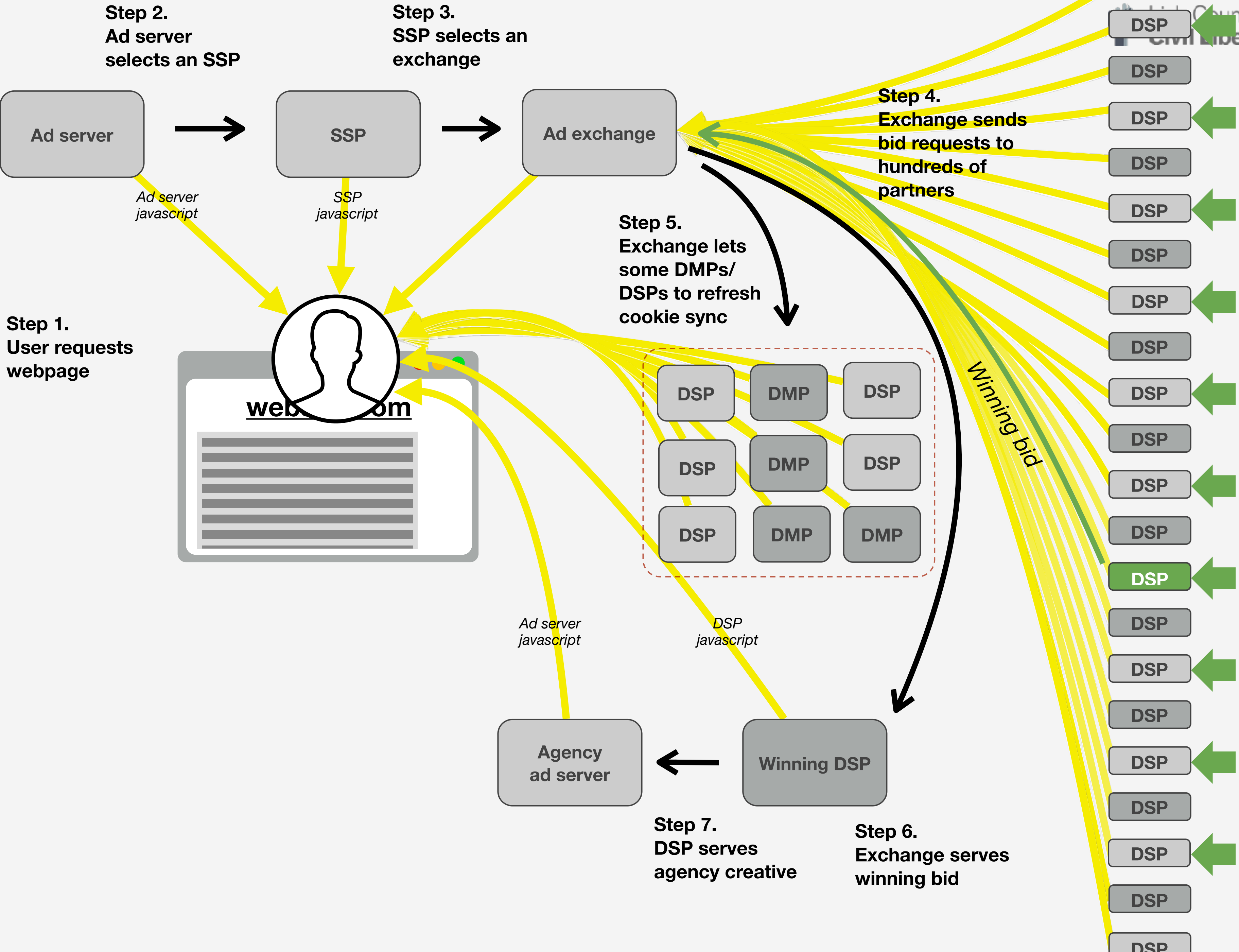
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of
real-time bidding that is used in
online behavioural advertising.

Legend

Channel of data leakage

Money



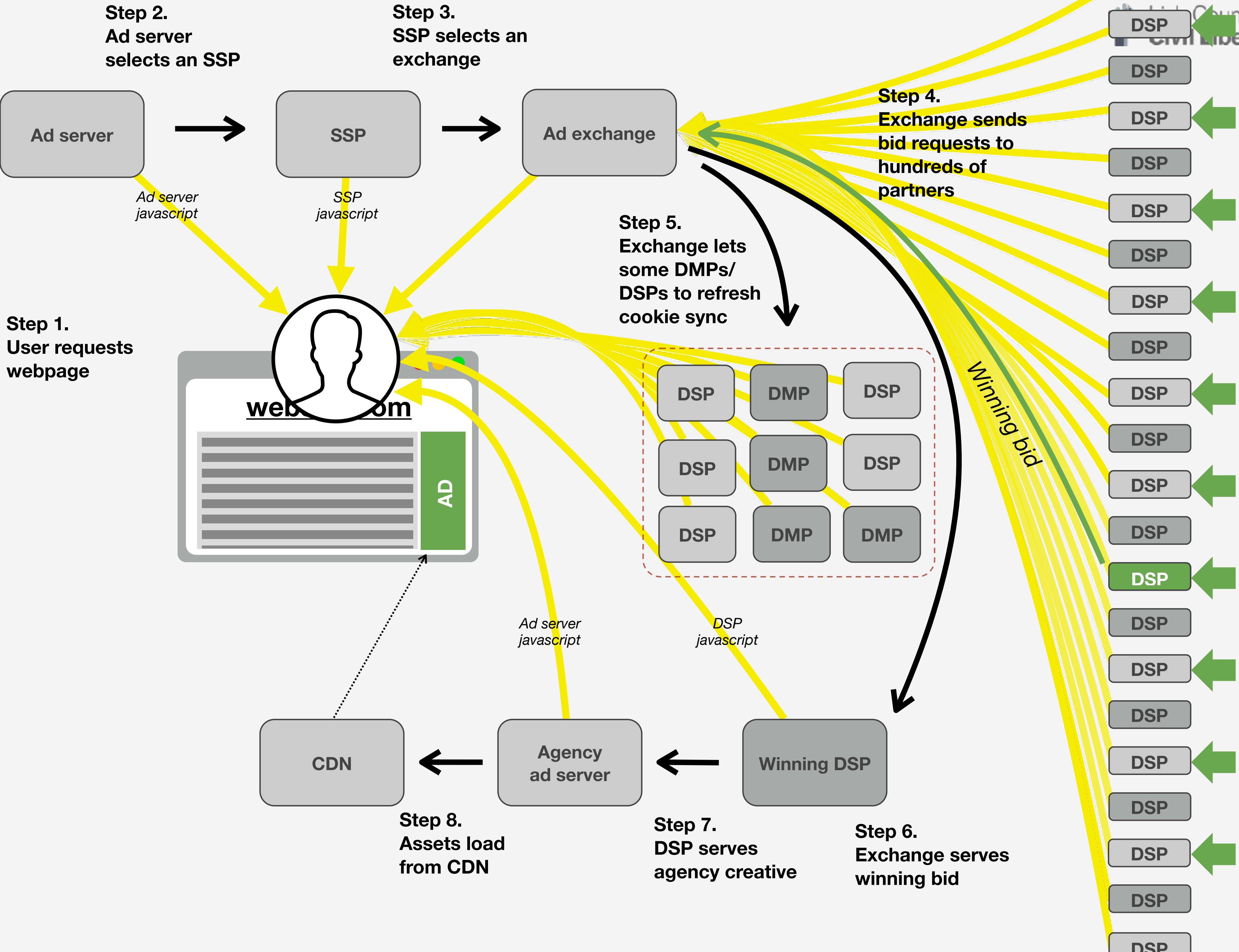
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of real-time bidding that is used in online behavioural advertising.

Legend

Channel of data leakage

Money



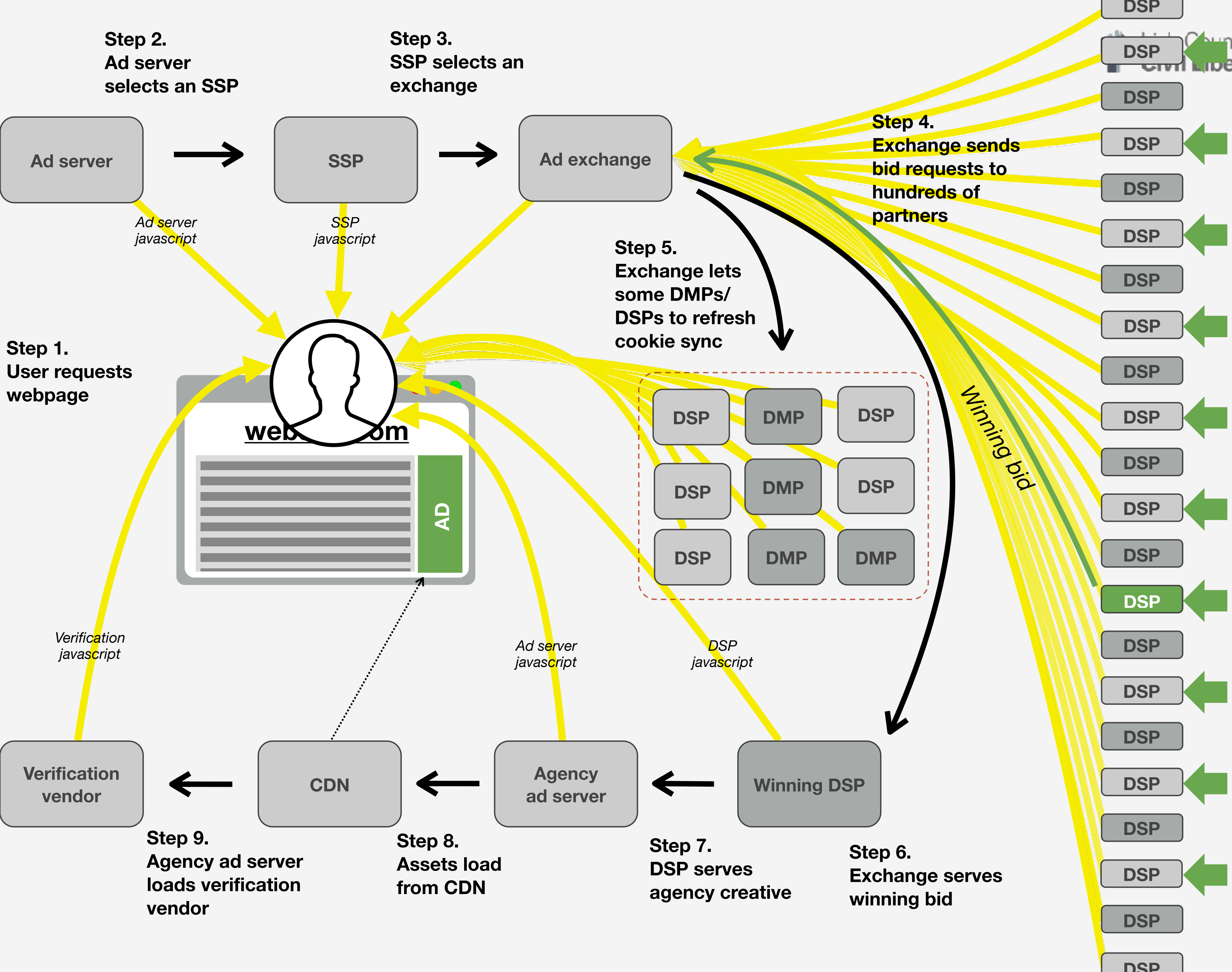
DATA LEAKAGE IN ONLINE ADVERTISING

This is the current process of real-time bidding that is used in online behavioural advertising.

Legend


Channel of data leakage

Money



**What's in a
bid request?**

IAB OpenRTB



AdCOM Specification v1.0

FINAL v1.0

November 2018

About the IAB Technology Lab

The IAB Technology Laboratory (Tech Lab) is a non-profit research and development consortium that produces and provides standards, software, and services to drive growth of an effective and sustainable global digital media ecosystem. Comprised of digital publishers and ad technology firms as well as marketers, agencies, and other companies with interests in the interactive marketing arena, IAB Tech Lab aims to enable brand and media growth via a transparent, safe, effective supply chain, simpler and more consistent measurement, and better advertising experiences for consumers, with a focus on mobile and TV/digital video channel enablement. The IAB Tech Lab portfolio includes the Digital Trust real-time standardized identity service designed to improve the digital experience for consumers, publishers, advertisers, and third-party platforms. Board members include AppNexus, ExtremeReach, Google, GroupM, Hearst Digital Media, Integral Ad Science, Index Exchange, LinkedIn, MediaMath, Microsoft, Moat, Pandora, PubMatic, Quanticast, Telaria, The Trade Desk, and Yahoo! Japan. Established in 2014, the IAB Tech Lab is headquartered in New York City with an office in San Francisco and representation in Seattle and London.

Learn more about IAB Tech Lab here: www.iabtechlab.com

License

OpenRTB Specification the IAB Tech Lab is licensed under a Creative Commons Attribution 3.0 License. To view a copy of this license, visit creativecommons.org/licenses/by/3.0/ or write to Creative Commons, 171 Second Street, Suite 300, San Francisco, CA 94105, USA.




Table of Contents

- OVERVIEW
 - OpenMedia Mission
 - AdCOM Executive Summary
 - Version History
- ARCHITECTURE
 - OpenMedia Layers
 - AdCOM Principles
- SPECIFICATION
 - Media Objects
 - Object: Ad
 - Object: Display
 - Object: Banner
 - Object: Native
 - Object: Asset
 - Object: Link/Asset
 - Object: Title/Asset
 - Object: Image/Asset
 - Object: Video/Asset
 - Object: Data/Asset
 - Object: Event
 - Object: Video
 - Object: Audio
 - Object: Audit

Google Authorized Buyers

18/02/2018

Authorized Buyers Real-Time Bidding Proto | Authorized Buyers | Google Developers

Authorized Buyers Real-Time Bidding Proto

This guide describes each field in the Authorized Buyers Real-Time Bidding proto v1.6.1, along with additional implementation tips and information.

See also the [Authorized Buyers RTB proto file](https://developers.google.com/authorized-buyers/rtb/downloads/realtime-bidding-proto) (<https://developers.google.com/authorized-buyers/rtb/downloads/realtime-bidding-proto>) upon which this guide is based.

BidRequest object

This is the message that Google uses to request bids. A BidRequest includes the ad slot from a single impression.

This section lists information that we know about the user.

Attribute	Required/Optional	Type	Implementation details
id	Required	bytes	Unique request ID generated by Google. This is 16 bytes.
ip	optional	bytes	The first 3 bytes of the IP address in network byte order. The first 6 bytes for IPv6. Note that the number of bytes included from IPv6 addresses may change.
user_data_treatment	repeated	UserDataTreatment	Reasons for constrained usage: treatment of user (google_user_id, hosted_match_data, IDF)

When set, the user's cookie/id data allows only requests that are not available in the usual fields. Instead the data is passed through the constrained usage fields and stricter rules apply. There may be multiple restrictions applicable. You must only use the data for use cases allowed. You will receive the user_data_treatment value if there are any applicable restrictions. However, you must whitelist in order to receive the constrained usage data. See the [User Data Treatments](https://developers.google.com/authorized-buyers/rtb/user_data_treatments) (https://developers.google.com/authorized-buyers/rtb/user_data_treatments) guide for more information.

The impacted fields are:

- google_user_id: Use google_user_id, constrained_usage_google_user_id.

<https://developers.google.com/authorized-buyers/rtb/real-time-bidding-guide>

1/14



AdCOM Specification v1.0

FINAL v1.0

November 2018

About the IAB Technology Lab

The IAB Technology Laboratory (Tech Lab) is a non-profit research and development consortium that produces and provides standards, software, and services to drive growth of an effective and sustainable global digital media ecosystem. Comprised of digital publishers and ad technology firms as well as marketers, agencies, and other companies with interests in the interactive marketing arena, IAB Tech Lab aims to enable brand and media growth via a transparent, safe, effective supply chain, simpler and more consistent measurement, and better advertising experiences for consumers, with a focus on mobile and TV/digital video channel enablement. The IAB Tech Lab portfolio includes the DigiTrust real-time standardized identity service designed to improve the digital experience for consumers, publishers, advertisers, and third-party platforms. Board members include AppNexus, ExtremeReach, Google, GroupM, Hearst Digital Media, Integral Ad Science, Index Exchange, LinkedIn, MediaMath, Microsoft, Moat, Pandora, PubMatic, Quantcast, Telaria, The Trade Desk, and Yahoo! Japan. Established in 2014, the IAB Tech Lab is headquartered in New York City with an office in San Francisco.


```
"id": "1234",
"name": "Awesome Example Site",
"domain": "examplesitedomain.com",
"mobile": 1,
"amp": 0,
"pub": {
  "id": "9876",
  "name": "Example Publisher, Inc.",
  "domain": "examplepubdomain.com"
},
},
"user": {
  "id": "a0af45c77890045deec100acb8443baff57c",
  "buyeruid": "fcd4282456238256034abcdef220d9aa5892",
  "yob": 1990,
  "gender": "F"
},
"device": {
  "type": 4,
  "ifa": "8846d6fa10008bceaaf322908dfcb221",
  "ip": "1.2.3.4",
  "ua": "...user agent string...",
  "make": "Apple",
  "model": "iPhone",
  "hwv": "6s",
  "os": 13,
  "osv": "11.4.1",
  "mccmnc": "310-005",
  "geo": {
    "type": 1,
    "lat": 42.3601,
    "lon": 71.0581,
    "country": "USA",
    "utcoffset": -300
  }
}
```

The website this specific person is currently viewing

Various ID codes that identify this specific person, and can tie them to existing profiles

Distinctive characteristics of this specific person

Distinctive information about this specific person's device

This specific person's IP address

Distinctive information about this specific person's device

This young woman's GPS coordinates!

IAB7-21	Diabetes
IAB7-22	Epilepsy
IAB7-23	GERD/Acid Reflux
IAB7-24	Headaches/Migraines
IAB7-25	Heart Disease
IAB7-26	Herbs for Health
IAB7-27	Holistic Healing
IAB7-28	IBS/Crohn's Disease
IAB7-29	Incest/Abuse Support
IAB7-30	Incontinence
IAB7-31	Infertility
IAB7-32	Men's Health
IAB7-33	Nutrition
IAB7-34	Orthopedics
IAB7-35	Panic/Anxiety Disorders
IAB7-36	Pediatrics
IAB7-37	Physical Therapy
IAB7-38	Psychology/Psychiatry
IAB7-39	Senior Health

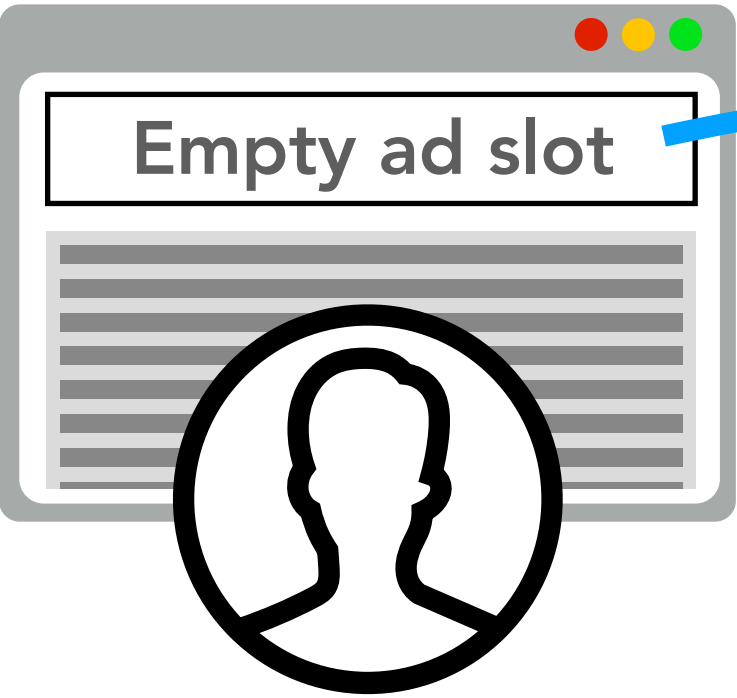
“Surfacing thousands of vendors with broad rights to use data w/out tailoring those rights may be too many vendors/permissions”

“Publishers recognize there is no technical way to limit the way data is used after the data is received by a vendor for decisioning/bidding on/after delivery of an ad...”

“pubvendors.json v1.0: Transparency & Consent Framework”,
IAB, May 2018

**What's the
scale?**

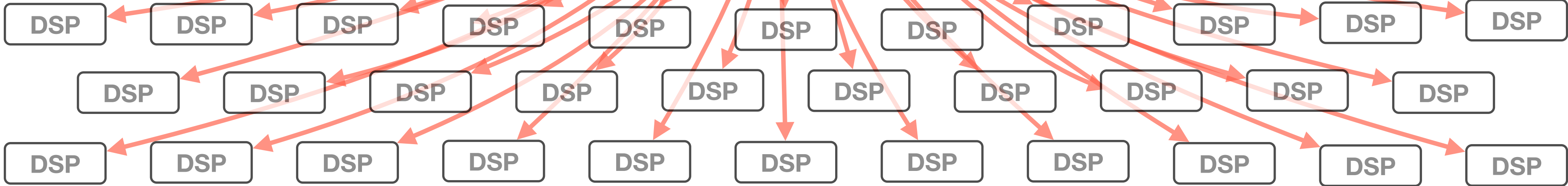
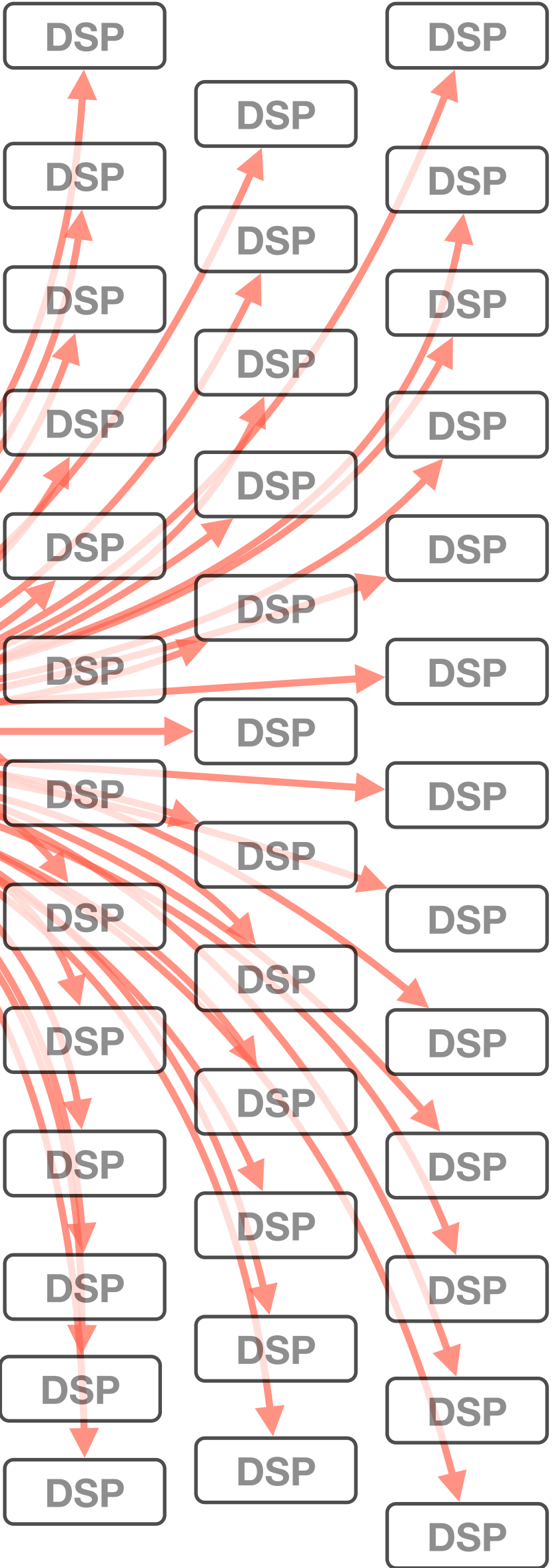
Step 1.
A person loads a
webpage



Step 2.
Supply Side Platform
(SSP) sends personal data
(RTB bid request) to one
or more Ad Exchanges



Step 3.
Ad Exchanges broadcast
the personal data (RTB
bid request) to many
Demand Side Platforms
(DSPs)



Legend

Not observable

Observable



Service Policies

Third-Party Providers

The below list is a list of Xandr's third-party partners which may receive Platform Data Information (as defined in Xandr's Platform Privacy Policy) as a result of their partnership due to their partnerships with Xandr customers using Xandr's technology. Xandr may share such information with these partners using Xandr technology depending on the terms and controls in place. If you would like to opt-out or manage

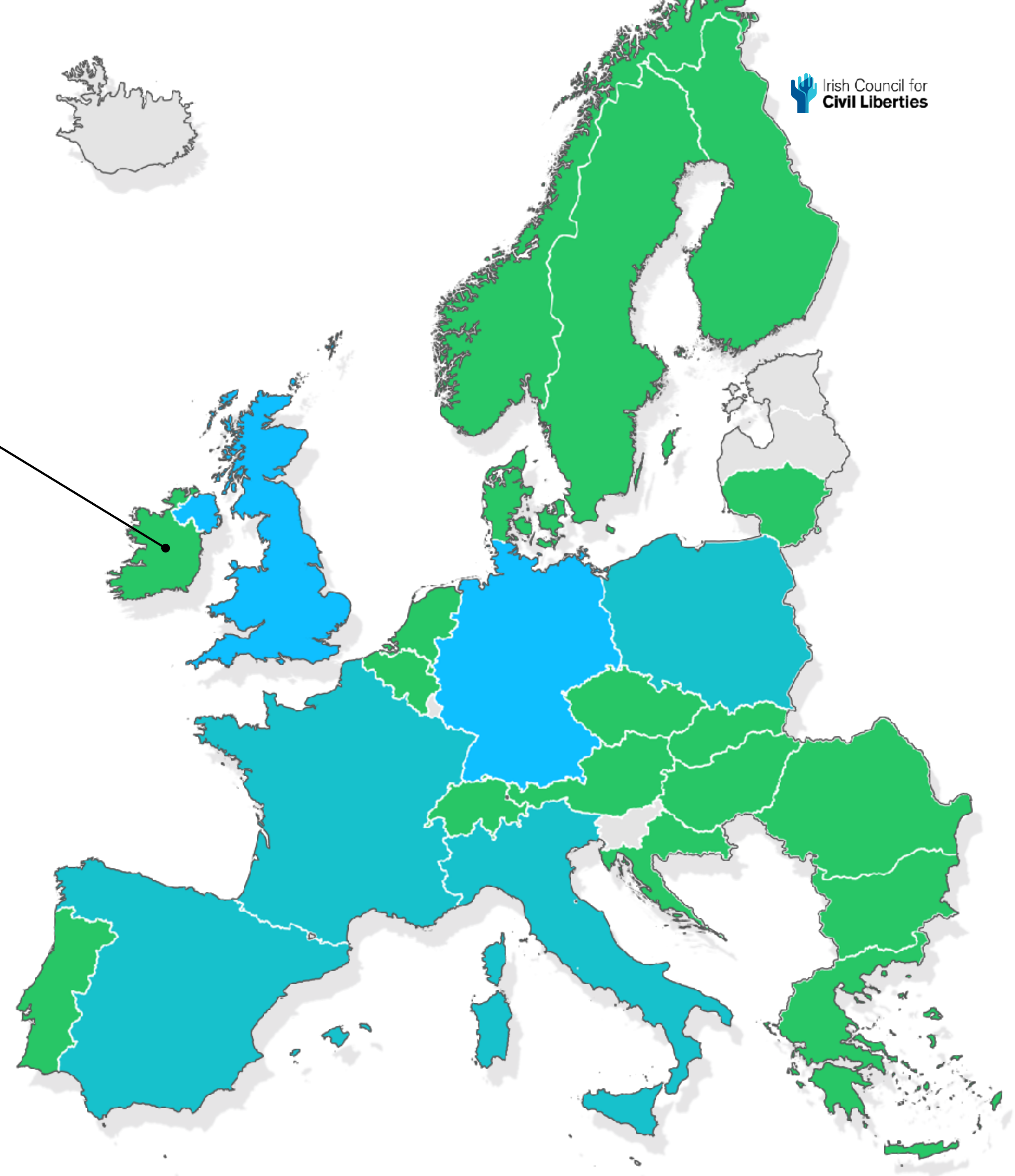
**Hundreds of billions
of data leaks a day.**

(The biggest data breach yet recorded)

392 RTB broadcasts a day
per person, on average*

Billions of RTB broadcasts (daily)

 <1  1-8  8-17  17-26  26-32



*Does not include data for Amazon and Meta



Everybody you
have ever known

**Hidden
dossiers on
everyone**

D209 =CONCATENATE(E209," | ",F209," | ",G209," | ")

A B C D



Audience Taxonomy 1.0

IAB Tech Lab common license

Audience Taxonomy version 1.0 - public comment release May 2018

This is how the industry celebrated the GDPR's date of application



	Unique ID	Parent ID	Condensed Name (1st, 2nd, Last Tier)
203	193	191	Demographic Personal Finance Very Low Net Worth
204	194	191	Demographic Personal Finance Low Net Worth
205	195	191	Demographic Personal Finance Mid Net Worth
206	196	191	Demographic Personal Finance High Net Worth
207	197	191	Demographic Personal Finance Super High Net Worth
208	198	1	Demographic Politics
209	199	198	Demographic Politics Conservitive
210	200	198	Demographic Politics Green
211	201	198	Demographic Politics Independant
212	202	198	Demographic Politics Liberal



Audience Taxonomy 1.0

IAB Tech Lab common license

Audience Taxonomy version 1.0 - public comment release May 2018

** Denotes use of Geo Extension (see Tier 5 for relevant code granularity and formats)*

*** Denotes use of purchase intent extension*

Unique ID	Parent ID	Condensed Name (1st, 2nd, Last Tier)
1		Demographic
2	1	Demographic Age Range
3	2	Demographic Age Range 18-20
4	2	Demographic Age Range 21-24
5	2	Demographic Age Range 25-29
6	2	Demographic Age Range 30-34

Religion & Spirituality | Agnosticism |

Religion & Spirituality | Astrology |

Religion & Spirituality | Atheism |

Religion & Spirituality | Buddhism |

Religion & Spirituality | Christianity |

Religion & Spirituality | Hinduism |

Religion & Spirituality | Islam |

Religion & Spirituality | Judaism |

Religion & Spirituality | Sikhism |

Religion & Spirituality | Spirituality |

585	583	Interest Real Estate Hotel Properties
587	583	Interest Real Estate Houses
588	583	Interest Real Estate Industrial Property
589	583	Interest Real Estate Land and Farms
590	583	Interest Real Estate Office Property
591	583	Interest Real Estate Real Estate Buying and Selling
592	583	Interest Real Estate Real Estate Renting and Leasing
593	583	Interest Real Estate Retail Property
594	583	Interest Real Estate Vacation Properties
595	206	Interest Religion & Spirituality
596	595	Interest Religion & Spirituality Agnosticism
597	595	Interest Religion & Spirituality Astrology
598	595	Interest Religion & Spirituality Atheism
599	595	Interest Religion & Spirituality Buddhism
600	595	Interest Religion & Spirituality Christianity
601	595	Interest Religion & Spirituality Hinduism
602	595	Interest Religion & Spirituality Islam
603	595	Interest Religion & Spirituality Judaism
604	595	Interest Religion & Spirituality Sikhism
605	595	Interest Religion & Spirituality Spirituality
606	206	Interest Shopping
607	206	Interest Sports
608	607	Interest Sports American Football

ns, and Symptoms		Heart and Cardiovascular
ns, and Symptoms		Infectious Disease
ns, and Symptoms		First Aid Supplies
ns, and Symptoms		Lung and Respiratory
ns, and Symptoms		Mental Health
ns, and Symptoms		Infertility
ns, and Symptoms		Blood Disorder
ns, and Symptoms		STD
ns, and Symptoms		Skin Condition
s, and Symptoms		Clean

...s, and Symptoms	Diabetes
...s, and Symptoms	Digestive Disorder
...s, and Symptoms	Contraceptive Products/Condoms
...s, and Symptoms	Dietary Supplements
...s, and Symptoms	Testosterone Boosters
...s, and Symptoms	Weight Reduction and Control
...s, and Symptoms	Medical Devices
Satire	

...s, and Symptoms	Diabetes
...s, and Symptoms	Digestive Disorder
...s, and Symptoms	Contraceptive Products/Condoms
...s, and Symptoms	Dietary Supplements
...s, and Symptoms	Testosterone Boosters
...s, and Symptoms	Weight Reduction and Control
...s, and Symptoms	Medical Devices
Satire	

551	550	Interest Pharmaceuticals, Conditions, and Symptoms Health & Pharma
552	551	Interest Pharmaceuticals, Conditions, and Symptoms Conditions, and Symptoms
553	552	Interest Pharmaceuticals, Conditions, and Symptoms Allergy
554	552	Interest Pharmaceuticals, Conditions, and Symptoms Ear, Nose and Throat
555	552	Interest Pharmaceuticals, Conditions, and Symptoms Endocrine and Metabolic
556	552	Interest Pharmaceuticals, Conditions, and Symptoms Eye
557	552	Interest Pharmaceuticals, Conditions, and Symptoms Foot
558	552	Interest Pharmaceuticals, Conditions, and Symptoms Heart and Cardiovascular
559	552	Interest Pharmaceuticals, Conditions, and Symptoms Infectious Disease
560	552	Interest Pharmaceuticals, Conditions, and Symptoms First Aid Supplies
561	552	Interest Pharmaceuticals, Conditions, and Symptoms Lung and Respiratory
562	552	Interest Pharmaceuticals, Conditions, and Symptoms Mental Health
563	552	Interest Pharmaceuticals, Conditions, and Symptoms Infertility
564	552	Interest Pharmaceuticals, Conditions, and Symptoms Blood Disorder
565	552	Interest Pharmaceuticals, Conditions, and Symptoms STD
566	552	Interest Pharmaceuticals, Conditions, and Symptoms Skin Condition
567	552	Interest Pharmaceuticals, Conditions, and Symptoms Sleep
568	552	Interest Pharmaceuticals, Conditions, and Symptoms Substance Abuse
569	552	Interest Pharmaceuticals, Conditions, and Symptoms Pain
570	552	Interest Pharmaceuticals, Conditions, and Symptoms Bone and Joint
571	552	Interest Pharmaceuticals, Conditions, and Symptoms Nervous System
572	552	Interest Pharmaceuticals, Conditions, and Symptoms Cancer
573	552	Interest Pharmaceuticals, Conditions, and Symptoms Cold and Flu
574	552	Interest Pharmaceuticals, Conditions, and Symptoms Diabetes
575	552	Interest Pharmaceuticals, Conditions, and Symptoms Digestive Disorder
576	552	Interest Pharmaceuticals, Conditions, and Symptoms Contraceptive Products/Condoms
577	552	Interest Pharmaceuticals, Conditions, and Symptoms Dietary Supplements
578	552	Interest Pharmaceuticals, Conditions, and Symptoms Testosterone Boosters
579	552	Interest Pharmaceuticals, Conditions, and Symptoms Weight Reduction and Control
580	552	Interest Pharmaceuticals, Conditions, and Symptoms Medical Devices

349	348	Interest Family and Relationships Dating
350	348	Interest Family and Relationships Parenting
351	350	Interest Family and Relationships Adoption and Fost
352	350	Interest Family and Relationships Daycare and Pre-S
353	350	Interest Family and Relationships Internet Safety
354	350	Interest Family and Relationships Parenting Babies a
355	350	Interest Family and Relationships Parenting Children
356	350	Interest Family and Relationships Parenting Teens
357	350	Interest Family and Relationships Special Needs Kids
358	348	Interest Family and Relationships Single Life
359	206	Interest Fine Art
360	359	Interest Fine Art Costume
361	359	Interest Fine Art Dance
362	359	Interest Fine Art Design
363	359	Interest Fine Art Digital Arts
364	359	Interest Fine Art Fine Art Photography
365	359	Interest Fine Art Modern Art

192	191	Demographic Personal Finance Negative Net Worth
193	191	Demographic Personal Finance Very Low Net Worth
194	191	Demographic Personal Finance Low Net Worth
195	191	Demographic Personal Finance Mid Net Worth
196	191	Demographic Personal Finance High Net Worth
197	191	Demographic Personal Finance Super High Net Worth
198	1	Demographic Politics
199	198	Demographic Politics Conservative
200	198	Demographic Politics Green
201	198	Demographic Politics Independant
202	198	Demographic Politics Liberal
203	198	Demographic Politics Moderate
204	198	Demographic Politics Not Registered to Vote
205	198	Demographic Politics Vote In Last Election
206		Interest
207	206	Interest Academic Interests
208	207	Interest Academic Interests Arts and Humanities
209	208	Interest Academic Interests Critical Thinking
210	208	Interest Academic Interests Counseling
211	208	Interest Academic Interests History
212	208	Interest Academic Interests Music and Art
213	208	Interest Academic Interests Philosophy

and Politics |

Weather |

Personal Finance

Personal Finance | Frugal Living |

Personal Finance | Insurance |

Personal Finance | **Personal Debt** |

Personal Finance | Personal Investing |

Personal Finance | Personal Taxes |

Personal Finance | Retirement Planning |

Birds |

s and Finance		Startups	
s and Finance		Business Administration	
s and Finance		Business Banking & Finance	
s and Finance		Angel Investment	
s and Finance		Bankruptcy	
s and Finance		Business Loans	
s and Finance		Debt Factoring & Invoice Disc	
s and Finance		Mergers and Acquisitions	
s and Finance		Business Finance	

Insurance | Insurance |
Insurance | Auto Insurance |
Insurance | Home Insurance |
Insurance | Life Insurance |
Insurance | Medical Insurance |
Insurance | Mortgage Lenders and Brokers |
Insurance | Payday and Emergency Loans |
Insurance | Retirement Planning |
Insurance | Stocks and Investments |
Insurance | Student Financial Aid |
Insurance | Tax Preparation Services |
Coverage Services

Purchase Intent*	Mature	Bars
Purchase Intent*	Mature	Beauty Products
Purchase Intent*	Mature	Contraceptive Products/Condoms
Purchase Intent*	Mature	Dating Services
Purchase Intent*	Mature	Dietary Supplements
Purchase Intent*	Mature	Drugs and Related Paraphernalia
Purchase Intent*	Mature	Erotic
Purchase Intent*	Mature	Family Planning
Purchase Intent*	Mature	Fast Food
Purchase Intent*	Mature	Firearms and Weapons/Gun Shows
Purchase Intent*	Mature	Fireworks
Purchase Intent*	Mature	Gambling/Casinos/Lottery

1508	1506	Purchase Intent*	Logistics and Delivery Shipping Services
1509	752	Purchase Intent*	Mature
1510	1509	Purchase Intent*	Mature Alcoholic Beverages
1511	1509	Purchase Intent*	Mature Attorneys
1512	1509	Purchase Intent*	Mature Background Searches/Arrest Records
1513	1509	Purchase Intent*	Mature Bail Bonds
1514	1509	Purchase Intent*	Mature Bars
1515	1509	Purchase Intent*	Mature Beauty Products
1516	1509	Purchase Intent*	Mature Contraceptive Products/Condoms
1517	1509	Purchase Intent*	Mature Dating Services
1518	1509	Purchase Intent*	Mature Dietary Supplements
1519	1509	Purchase Intent*	Mature Drugs and Related Paraphernalia
1520	1509	Purchase Intent*	Mature Erotic
1521	1509	Purchase Intent*	Mature Family Planning
1522	1509	Purchase Intent*	Mature Fast Food
1523	1509	Purchase Intent*	Mature Firearms and Weapons/Gun Shows
1524	1509	Purchase Intent*	Mature Fireworks
1525	1509	Purchase Intent*	Mature Gambling/Casinos/Lottery
1526	1509	Purchase Intent*	Mature Health Services
1527	1509	Purchase Intent*	Mature Marijuana Products & Accessories
1528	1509	Purchase Intent*	Mature Medical Devices
1529	1509	Purchase Intent*	Mature Nightclubs
1530	1509	Purchase Intent*	Mature Online Gambling and Gaming
1531	1509	Purchase Intent*	Mature Pharmaceuticals
1532	1509	Purchase Intent*	Mature Political Advertising
1533	1509	Purchase Intent*	Mature Political Issue Advertising
1534	1509	Purchase Intent*	Mature Religious & Ceremonial
1535	1509	Purchase Intent*	Mature Testosterone Boosters
1536	1509	Purchase Intent*	Mature Tobacco
1537	1509	Purchase Intent*	Mature Weight Reduction and Control

General Data Protection Regulation

General Data Protection Regulation

(f) processed in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures (**‘integrity and confidentiality’**).

GDPR, Article 5 (1)

“Surfacing thousands of vendors with broad rights to use data w/out tailoring those rights may be too many vendors/permissions”

“Publishers recognize there is no technical way to limit the way data is used after the data is received by a vendor for decisioning/bidding on/after delivery of an ad...”

“pubvendors.json v1.0: Transparency & Consent Framework”,
IAB, May 2018

“ must not: (i) use callout data ... to create user lists or profile users; (ii) associate callout data ... with third party data...”

“Authorized Buyers Programme Guidelines”, **Google**,
August 2018 (current version of March 2022 is similar)

“ must not: (i) use callout data ... to create user lists or profile users; (ii) associate callout data ... with third party data...”

“ Buyer will regularly monitor your compliance with this obligation, and immediately notify Google in writing if Buyer can no longer meet ... this obligation...”

“Authorized Buyers Programme Guidelines”, **Google**, August 2018 (current version of March 2022 is similar)

Prior information requirement will “break” programmatic trading

Consent under the GDPR must be “informed”, that is, the user consenting to the processing must have *prior* information as to the identity of the data controller processing his or her personal data and the purposes of the processing.⁵ As it is technically impossible for the user to have prior information about every data controller involved in a real-time bidding (RTB) scenario, programmatic trading, the area of fastest growth in digital advertising spend, would seem, at least *prima facie*, to be incompatible with consent under GDPR – and, as noted above, if a future ePrivacy Regulation makes virtually all interactions with the Internet subject solely to the consent legal basis, and consent is unavailable, then there will be no legal basis for such processing to take place or for media to monetise their content in this way.

“The EU’s proposed new cookie rules”, **IAB Europe to European Commission**, June 2017 (obtained using FOI)

Chrome File Edit View History Bookmarks People Tab Window Help

UK Home | Daily Mail Online

dailymail.co.uk/home/index.html

ADVERTISEMENT Privacy Policy | Feedback Like 16.6M Monday, Feb 1st 2021 12PM 6°C 3PM 6°C 5-Day Forecast

How we personalise your experience

Purposes / Features	Vendors
Venatus Media Limited ADventori SAS BidTheatre AB Ogury Ltd. Xandr, Inc. ShareThis, Inc NEORY GmbH RhythmOne DBA Unruly Group Ltd NEURAL.ONE ADDITION technologies AG Active Agent (ADITION technologies AG) Adverline The ADEPT Smart Ads Skimbit Ltd N - taistos networks A. Ne... s.r.o. Jellyfish Adform data ADA MED UNLIN E 33Ad Sif Media, Inc Rakuten LLC Gurum, Inc. J premium BV Avant S Limited Location Sciences AI G Gm Inc Street Compu tion Sizmek by Amazon Yieldlab AG Roku Advertising Services Nano Interactive GmbH Simplifi Holdings Inc PubMatic, Inc. comScore, Inc. Flashtalking, Inc. MediaMath, Inc. Sharethrough, Inc Smaato, Inc. Visarity Technologies GmbH Semasio GmbH Crimtan Holdings Limited Betgenius Ltd TreSensa Technologies, Inc. Teroa S.A. Criteo SA Blis Media Limited Lotame Solutions, inc LiveRamp, Inc. GroupM UK Limited Fifty Technology Limited MiQ Telaria SAS Sonobi, Inc Rich Audience Technologies SL LoopMe Limited Dynata LLC Showheroes SE Sublime smartclip Europe GmbH Fusio by S4M Eyeota Pte Ltd Avid Media Ltd Teemo SA DoubleVerify Inc. PIXIMEDIA SAS BIDSWITCH GmbH IPONWEB GmbH NextRoll, Inc. Teads digitalAudience	

Privacy & Cookies Policy

Don't allow

Allow all

THIS IS A CHARGE

Market impact on journalistic media

How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle

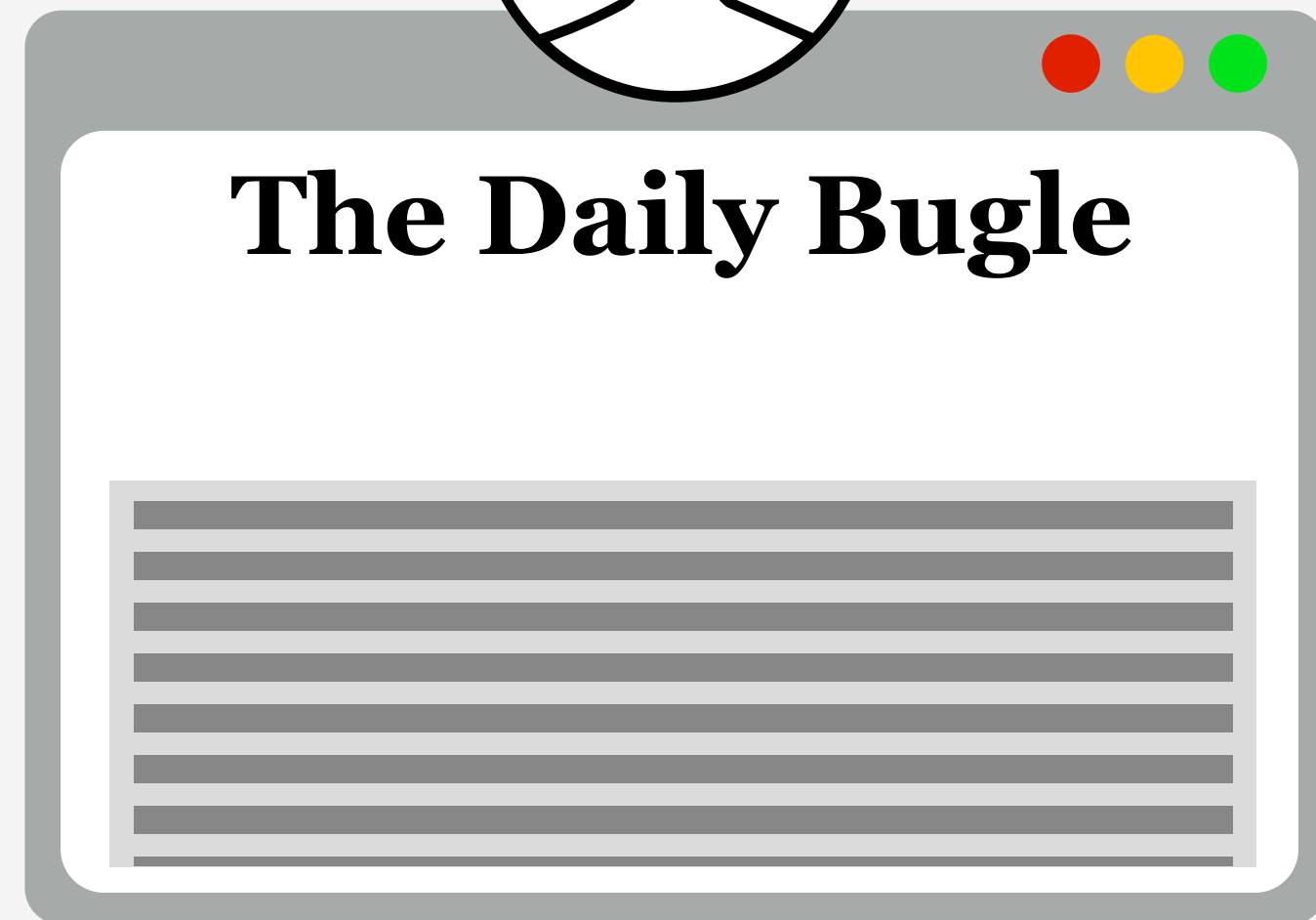


How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle

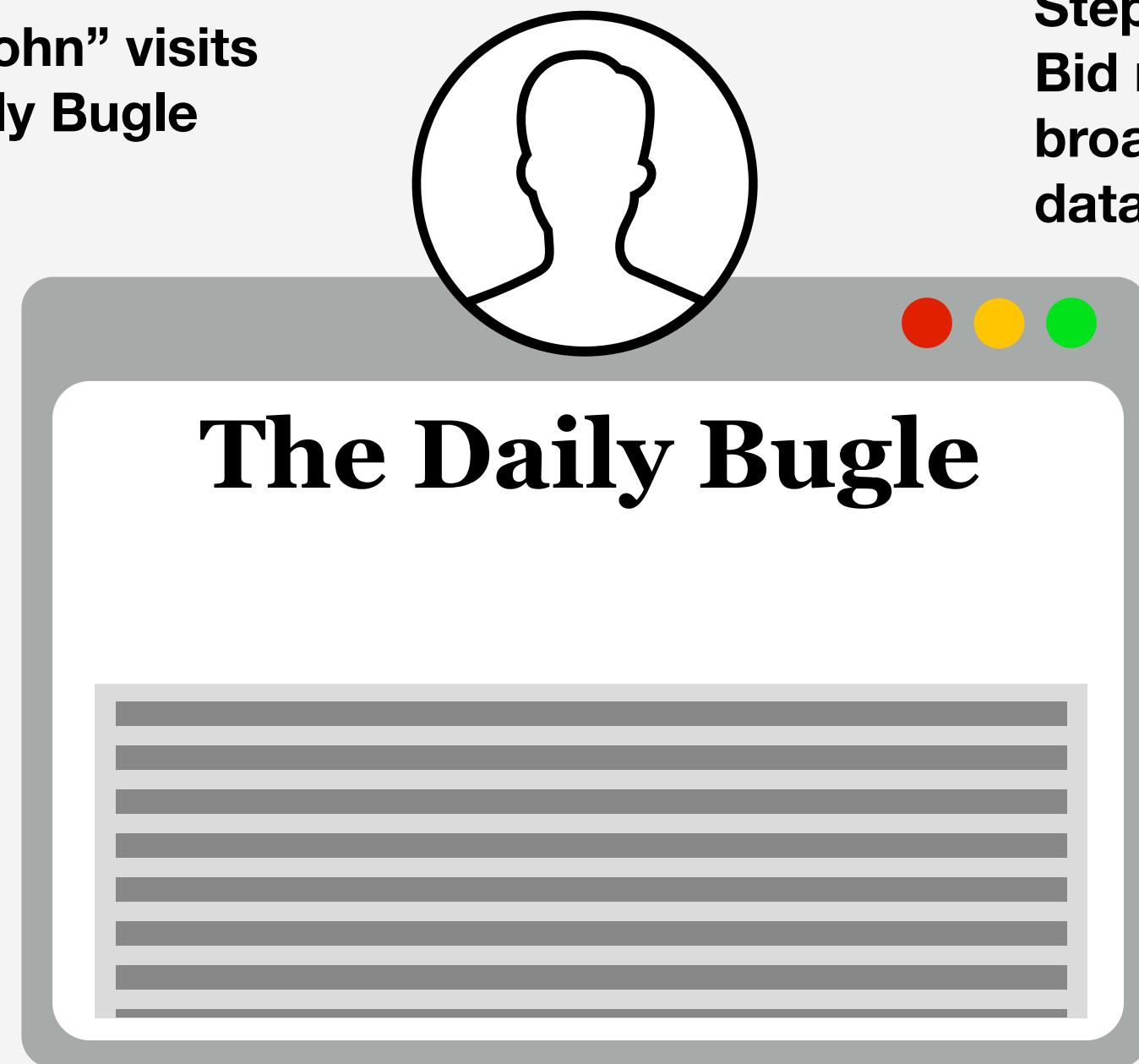


Step 2.
Bid request
broadcasts personal
data about John

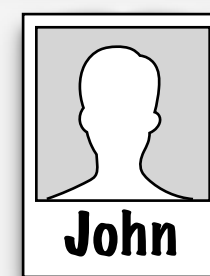


How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about John



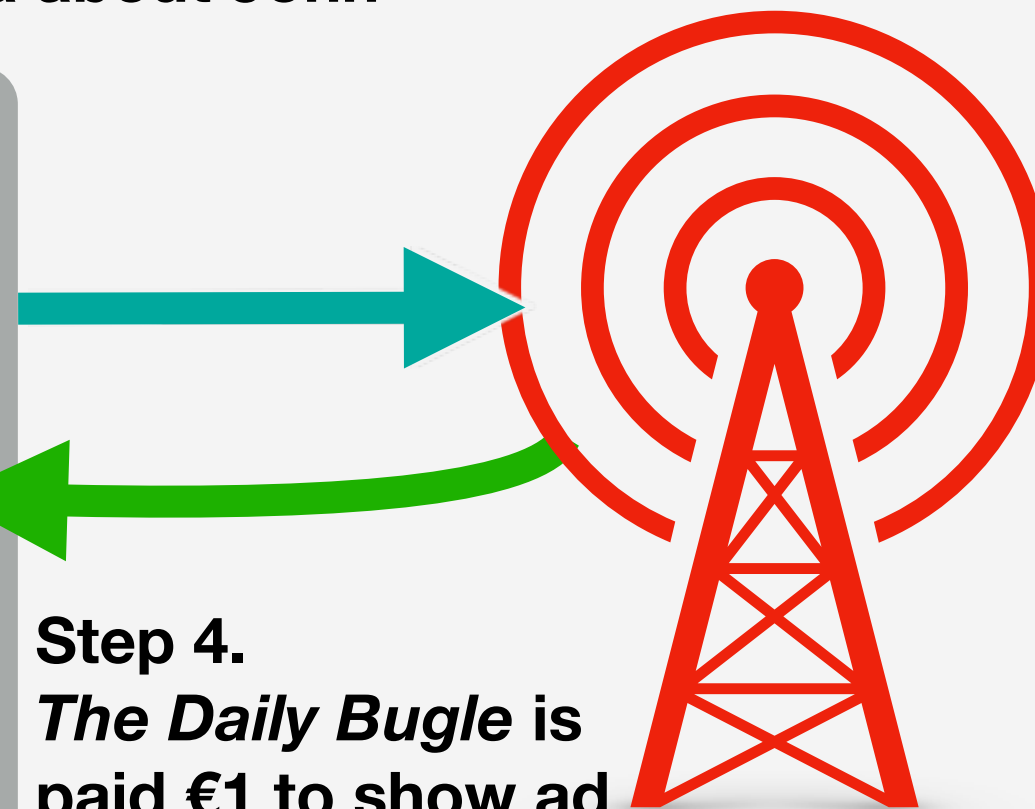
Step 3.
100s of companies in the ad
auction can now re-identify
John as a *Daily Bugle* reader

How RTB data leakage supports untrustworthy websites

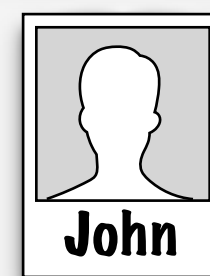
Step 1.
User “John” visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about John



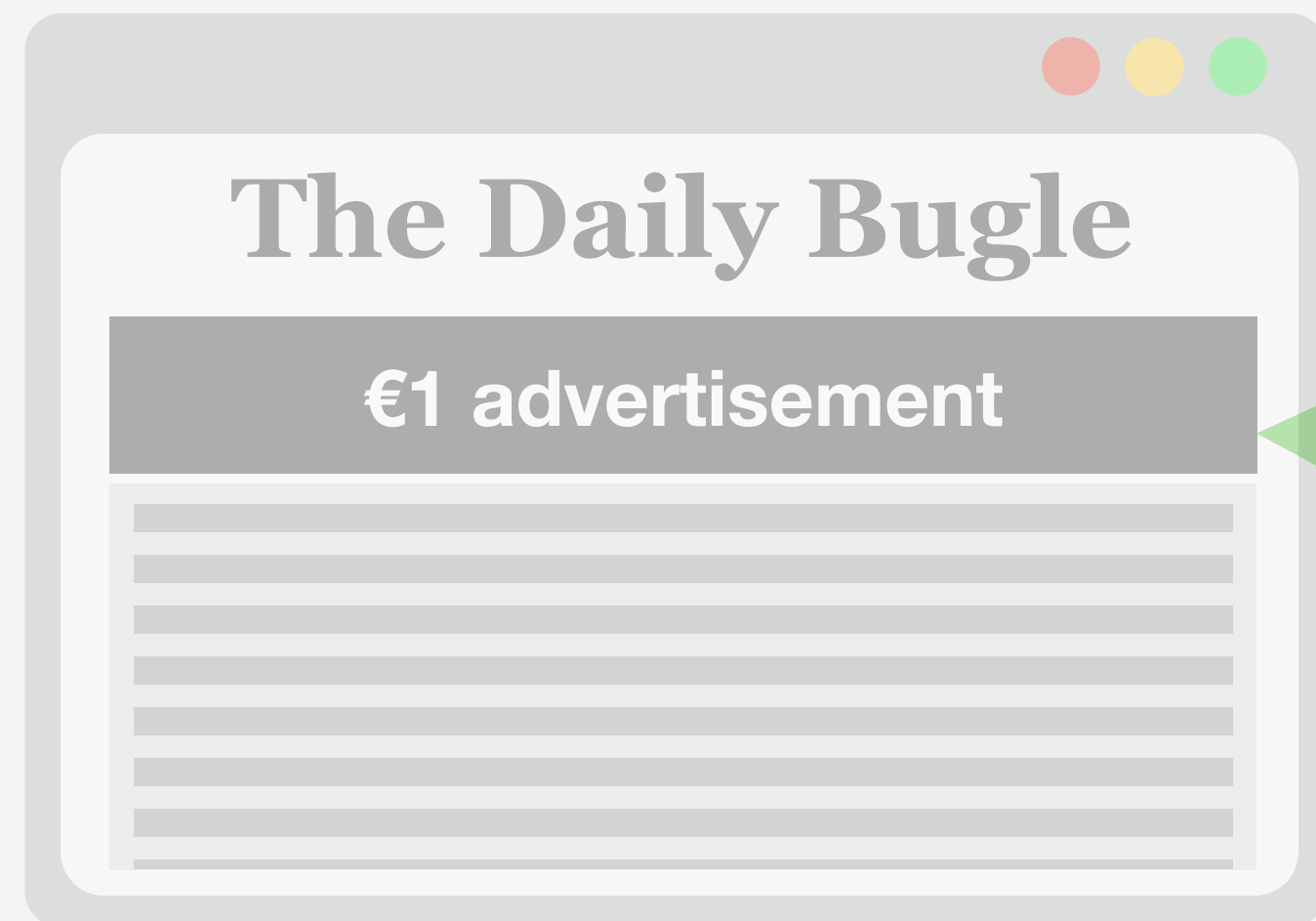
Step 4.
The Daily Bugle is
paid €1 to show ad
to John



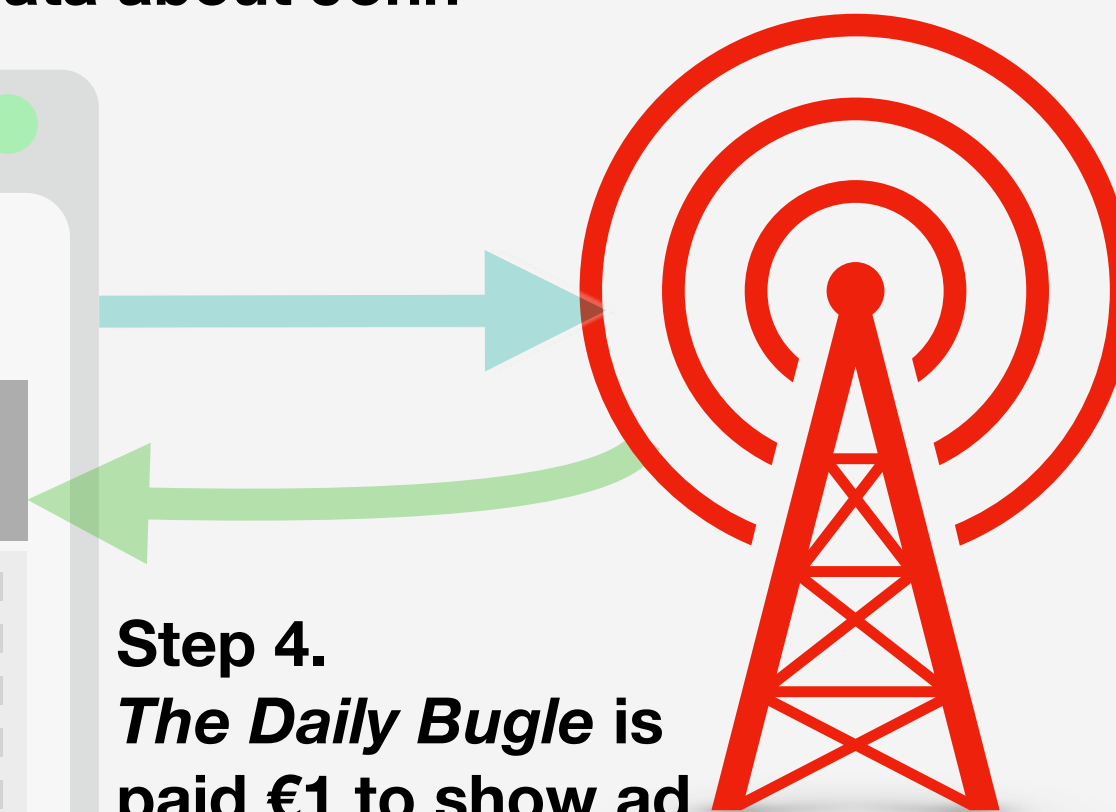
Step 3.
100s of companies in the ad
auction can now re-identify
John as a *Daily Bugle* reader

How RTB data leakage supports untrustworthy websites

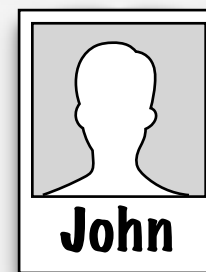
Step 1.
User “John” visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about John



Step 4.
The Daily Bugle is
paid €1 to show ad
to John



Step 3.
100s of companies in the ad
auction can now re-identify
John as a *Daily Bugle* reader

Step 5.
Later, John visits a
low quality website



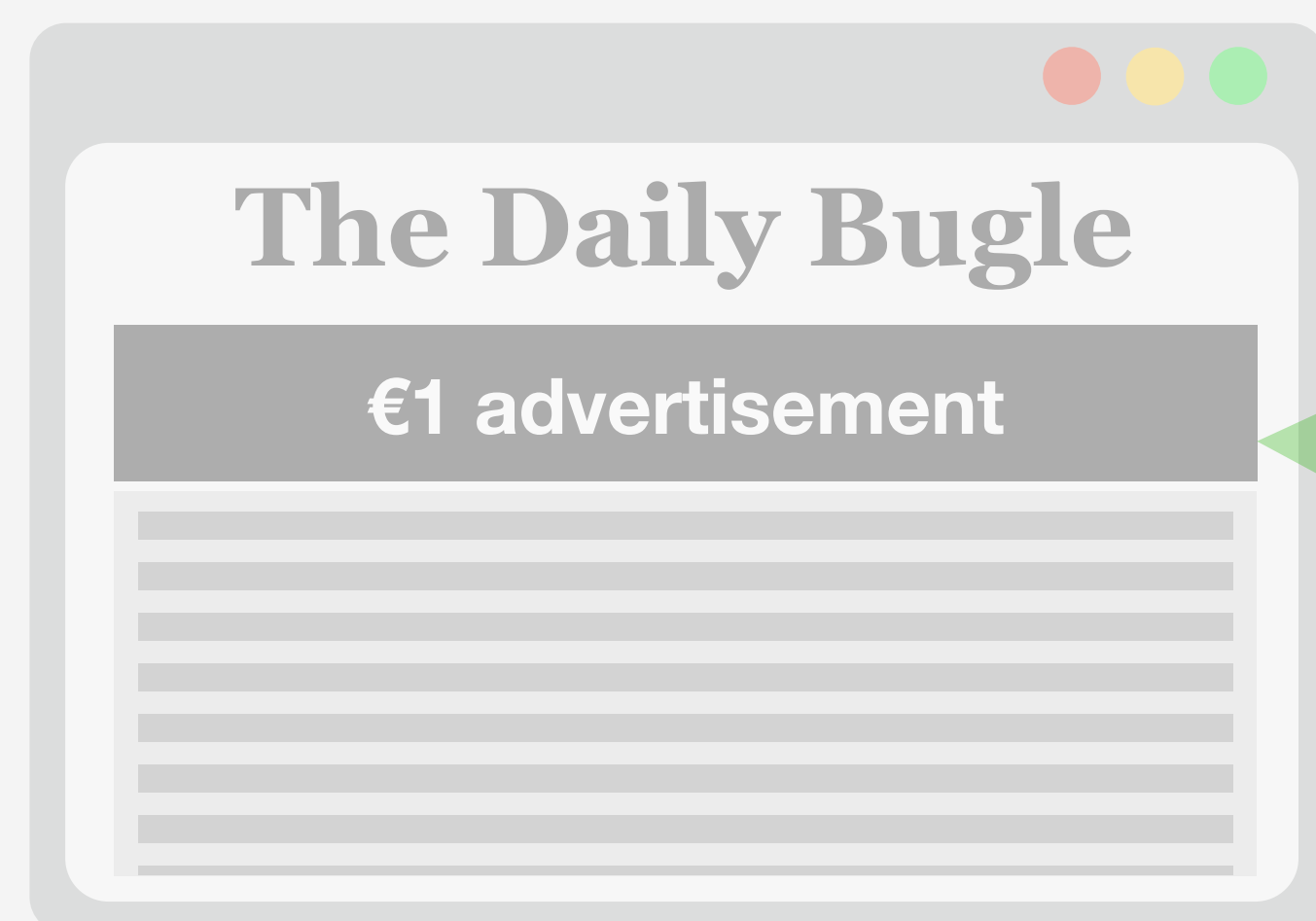
How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle

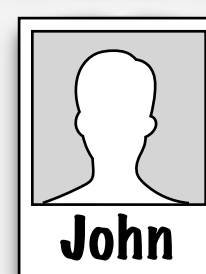
Step 2.
Bid request
broadcasts personal
data about John

Step 6.
Bid request
announces John is
here

Step 5.
Later, John visits a
low quality website



Step 4.
The Daily Bugle is
paid €1 to show ad
to John



Step 3.
100s of companies in the ad
auction can now re-identify
John as a *Daily Bugle* reader



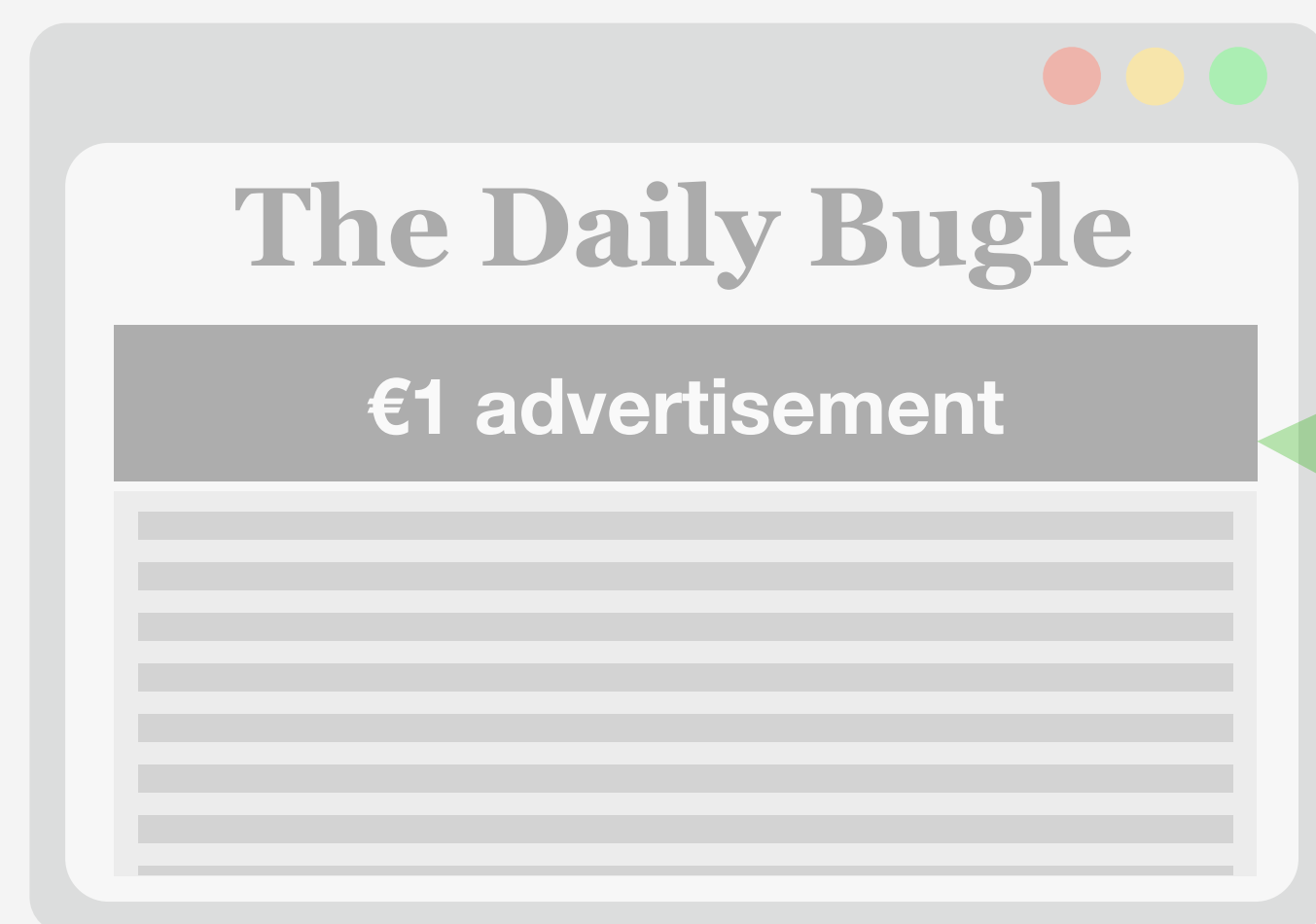
How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle

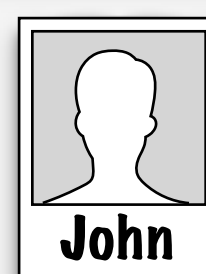
Step 2.
Bid request
broadcasts personal
data about John

Step 6.
Bid request
announces John is
here

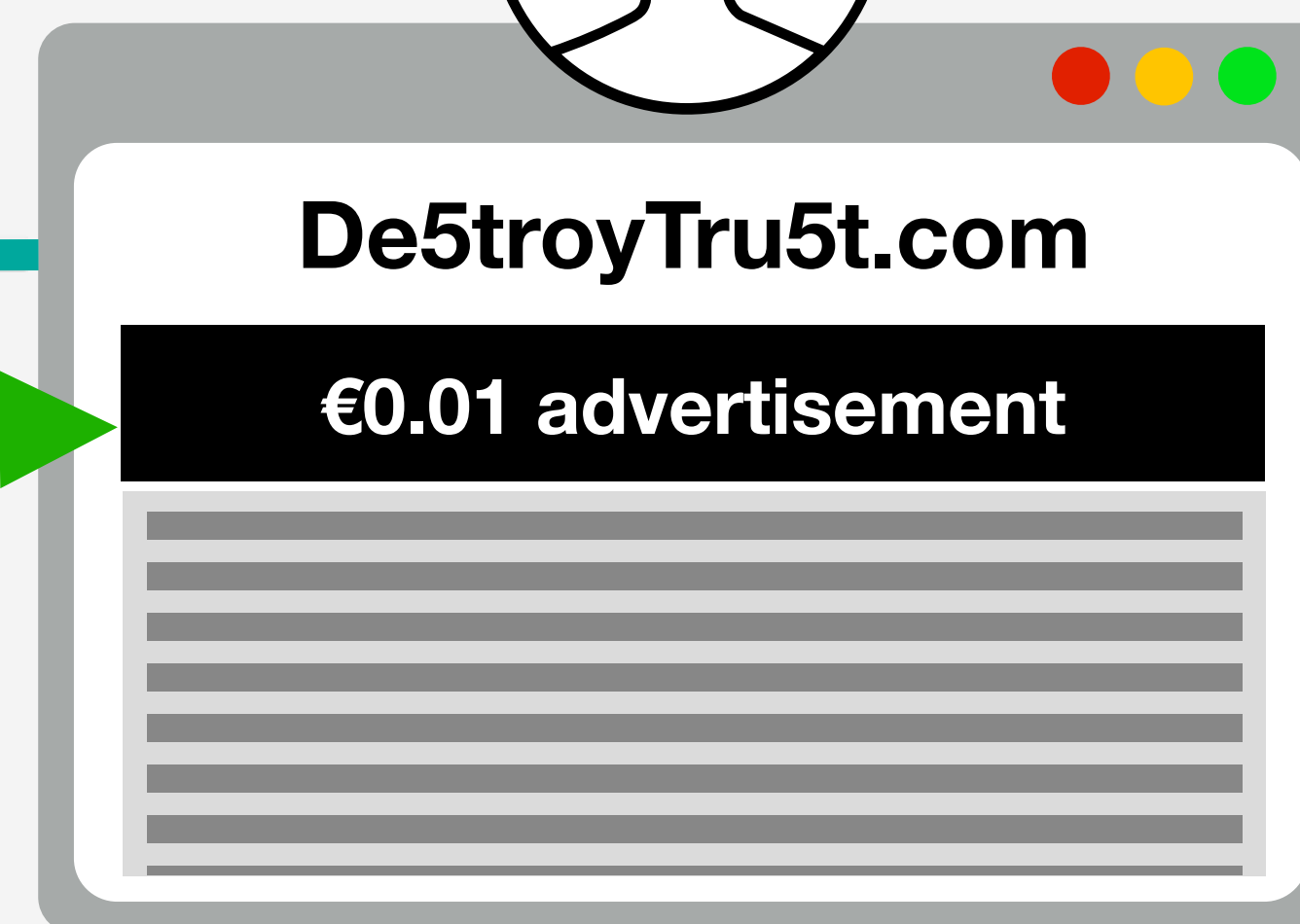
Step 5.
Later, John visits a
low quality website



Step 4.
The Daily Bugle is
paid €1 to show ad
to John



Step 3.
100s of companies in the ad
auction can now re-identify
John as a *Daily Bugle* reader



Step 7.
De5troyTru5t.com is paid
€0.01 to show ad to John



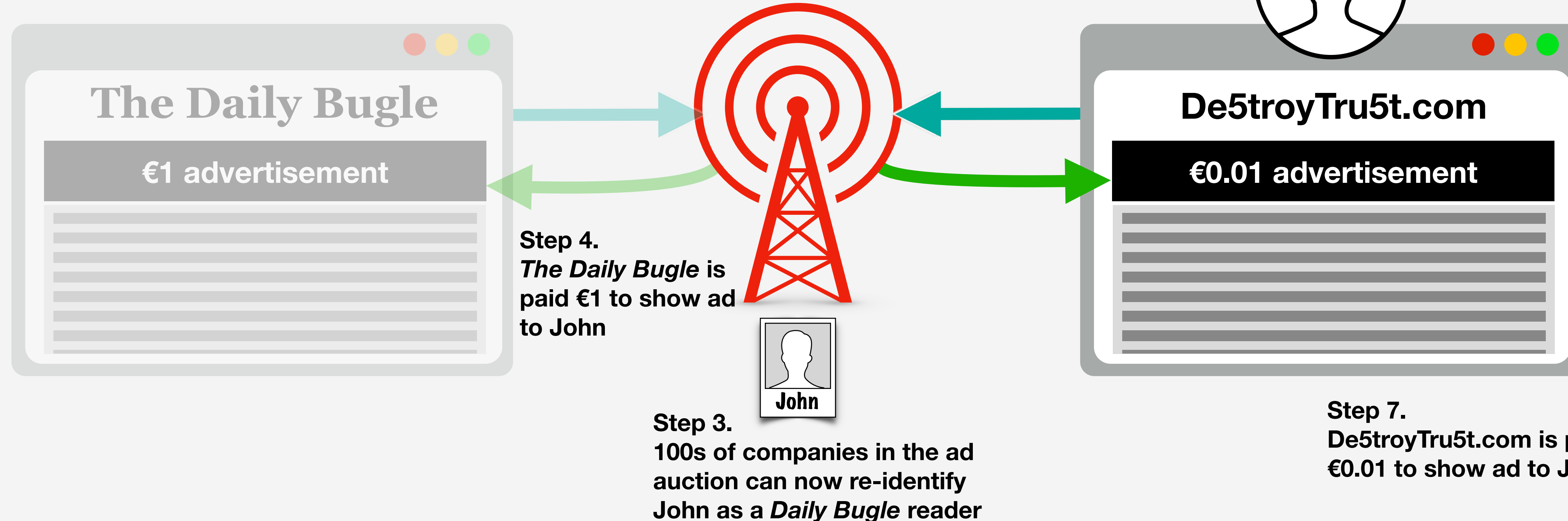
How RTB data leakage supports untrustworthy websites

Step 1.
User “John” visits
The Daily Bugle

Step 2.
Bid request
broadcasts personal
data about John

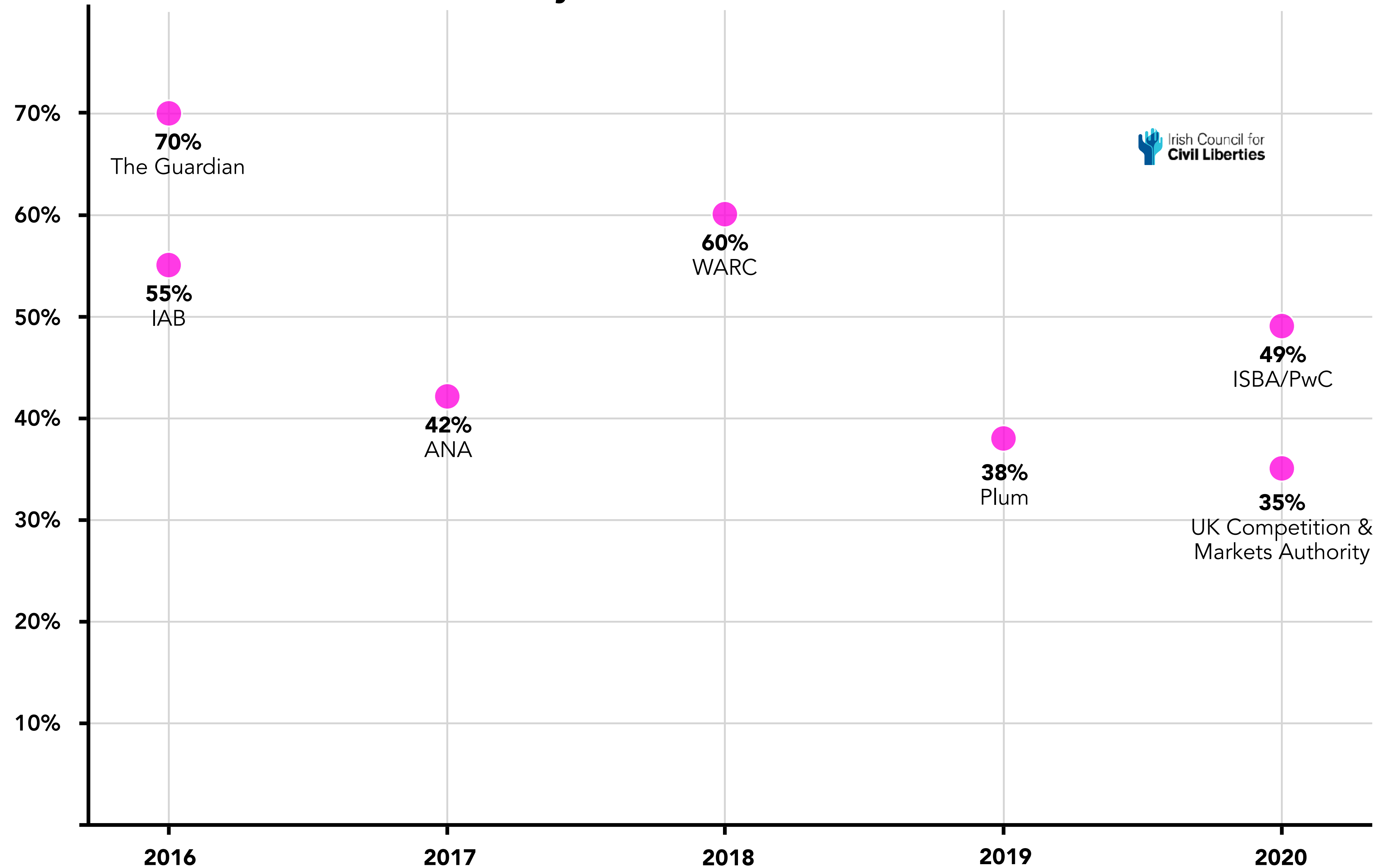
Step 6.
Bid request
announces John is
here

Step 5.
Later, John visits a
low quality website



Worthy sites lose their unique audience, and feed a business model for the bottom of the Web.

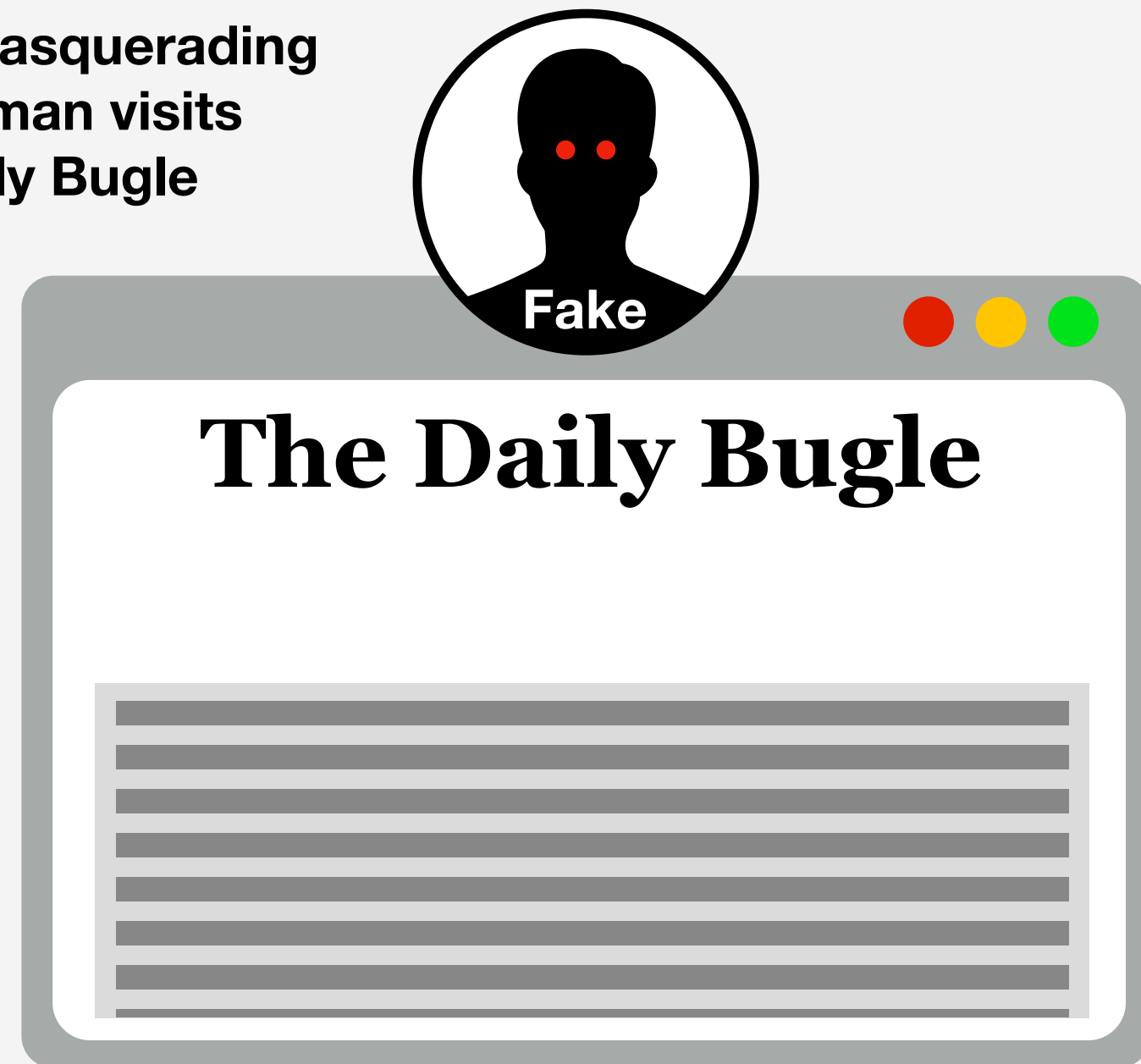
Estimates of % taken by "adtech tax"



How RTB enables fraudsters to steal from publishers and advertisers.

Step 1.

A bot masquerading
as a human visits
The Daily Bugle



How RTB enables fraudsters to steal from publishers and advertisers.

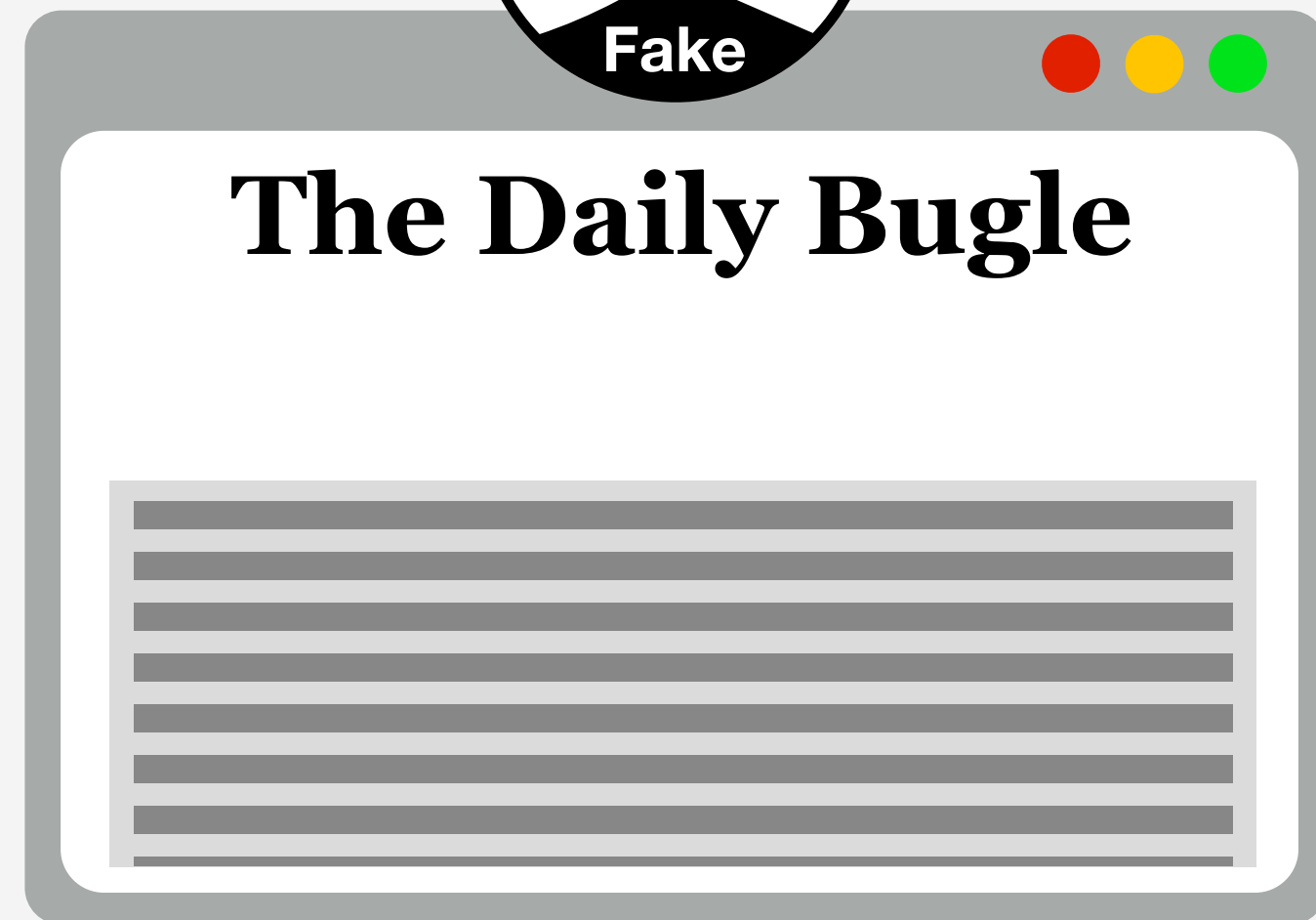
Step 1.

A bot masquerading
as a human visits
The Daily Bugle



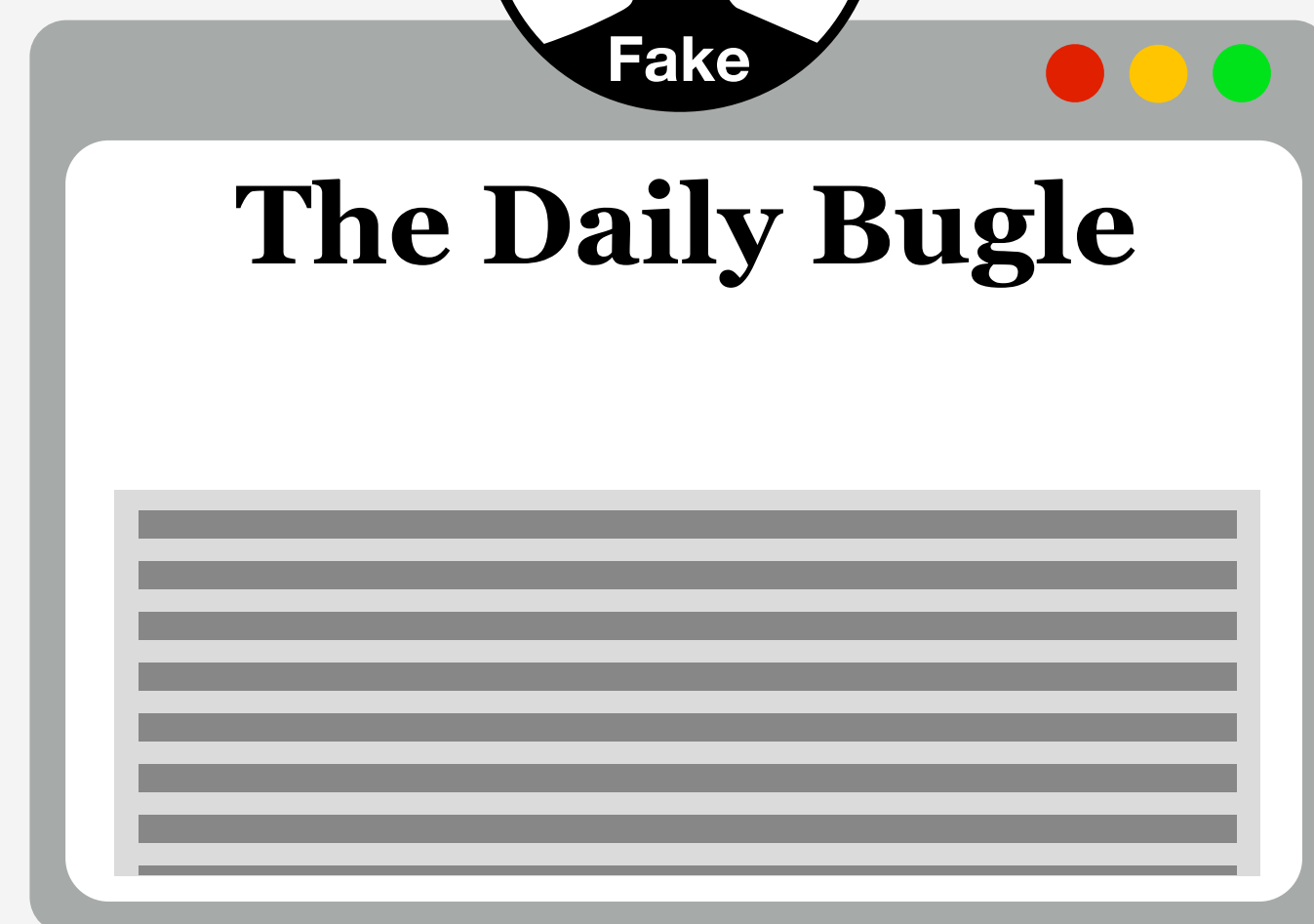
Step 2.

Bid request
broadcasts personal
data about Bot

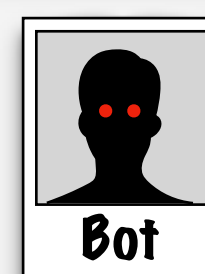


How RTB enables fraudsters to steal from publishers and advertisers.

Step 1.
A bot masquerading
as a human visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about Bot



Step 3.
100s of companies in the ad
auction can now re-identify
Bot as a *Daily Bugle* reader

How RTB enables fraudsters to steal from publishers and advertisers.

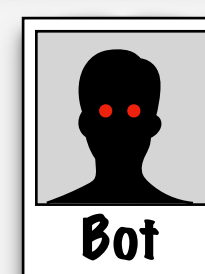
Step 1.
A bot masquerading
as a human visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about Bot



Step 4.
The Daily Bugle is
paid €1 to show ad



Step 3.
100s of companies in the ad
auction can now re-identify
Bot as a *Daily Bugle* reader

How RTB enables fraudsters to steal from publishers and advertisers.

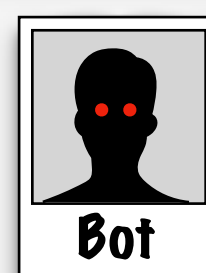
Step 1.
A bot masquerading
as a human visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about Bot

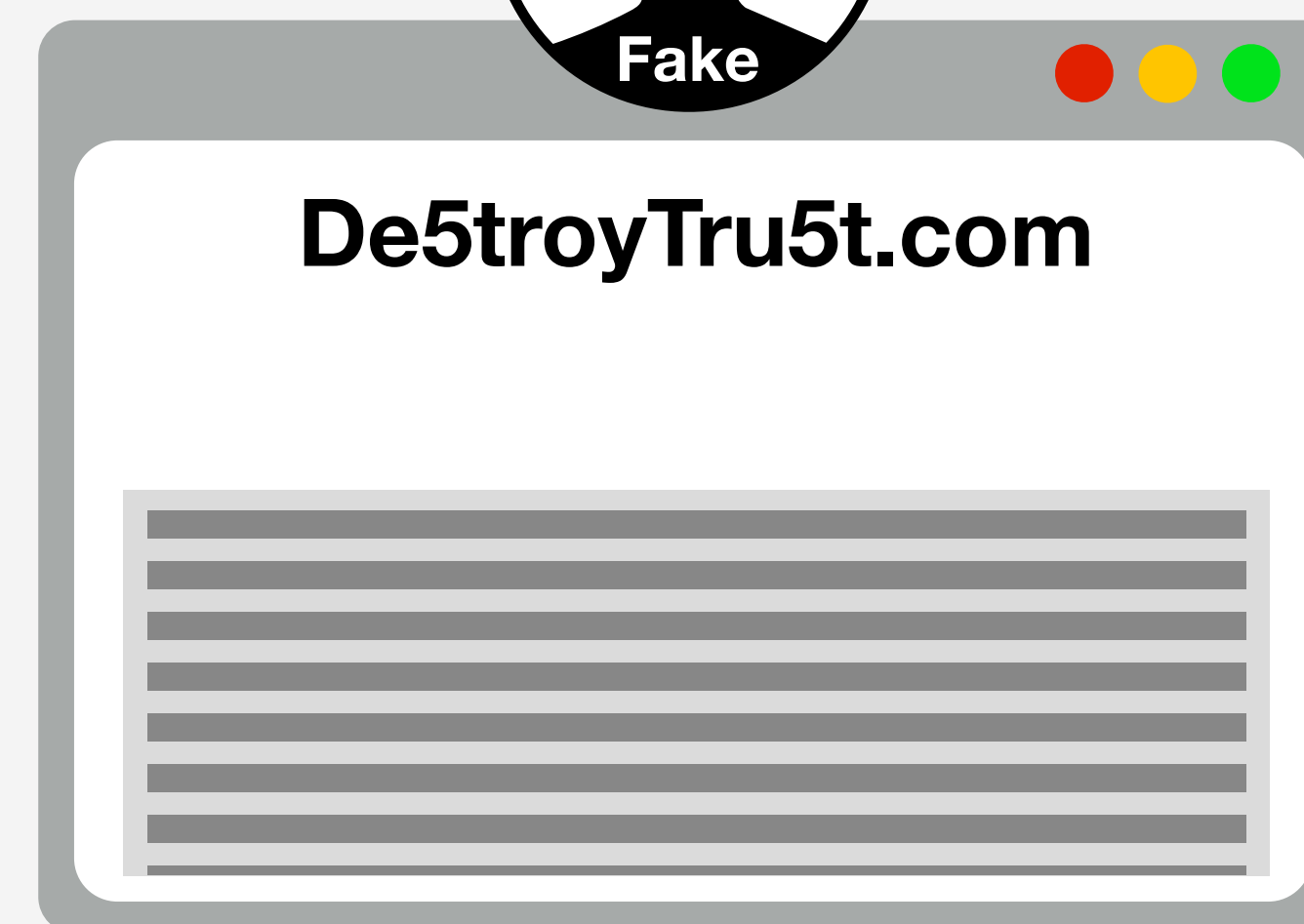


Step 4.
The Daily Bugle is
paid €1 to show ad



Step 3.
100s of companies in the ad
auction can now re-identify
Bot as a *Daily Bugle* reader

Step 5.
Later, an
untrustworthy website
buts bot traffic



How RTB enables fraudsters to steal from publishers and advertisers.

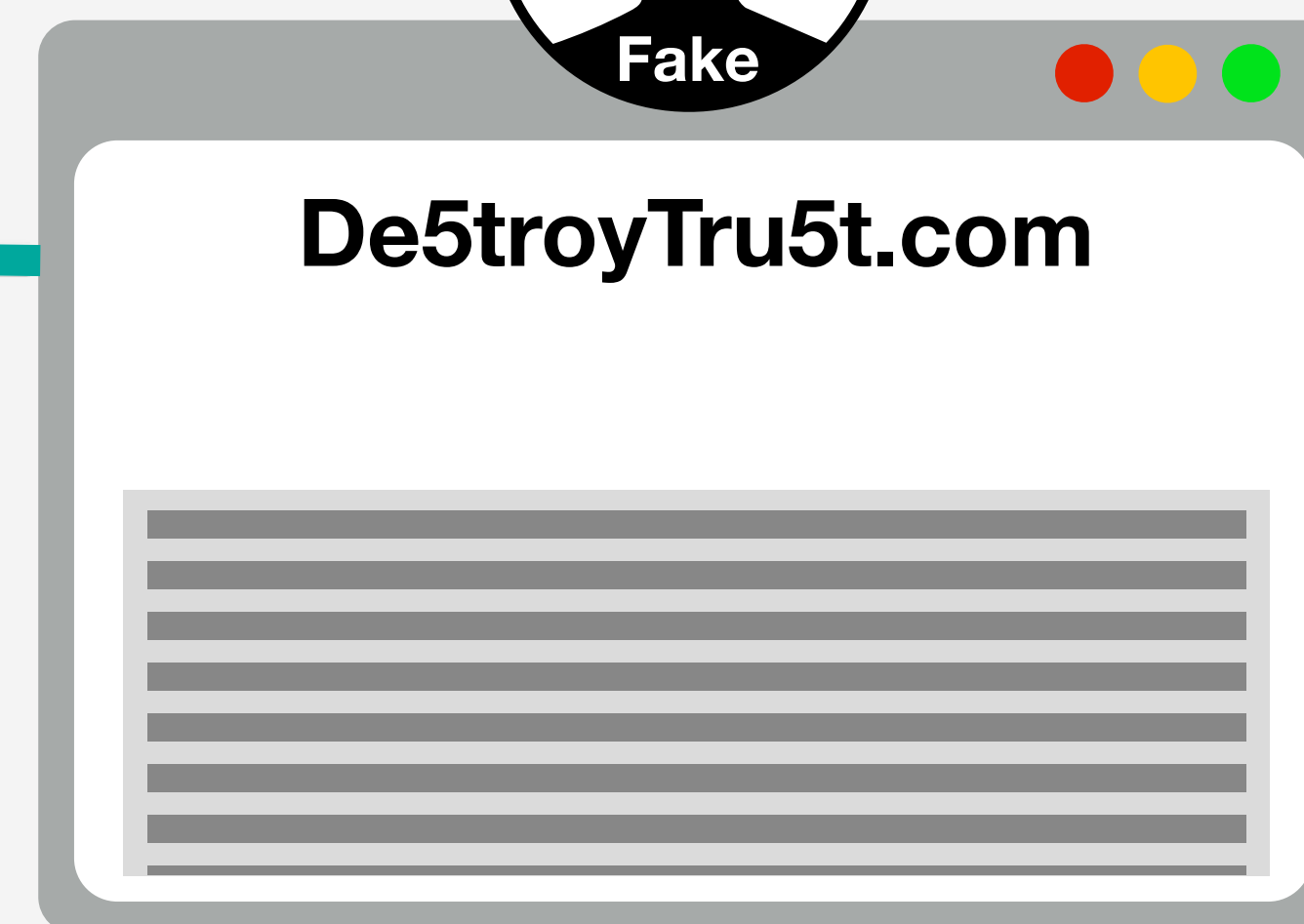
Step 1.
A bot masquerading
as a human visits
The Daily Bugle



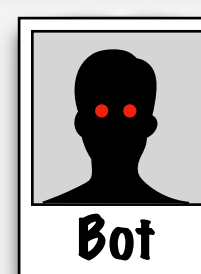
Step 2.
Bid request
broadcasts personal
data about Bot

Step 6.
Bid request
announces Bot is
here

Step 5.
Later, an
untrustworthy website
buts bot traffic



Step 4.
The Daily Bugle is
paid €1 to show ad



Step 3.
100s of companies in the ad
auction can now re-identify
Bot as a *Daily Bugle* reader

How RTB enables fraudsters to steal from publishers and advertisers.

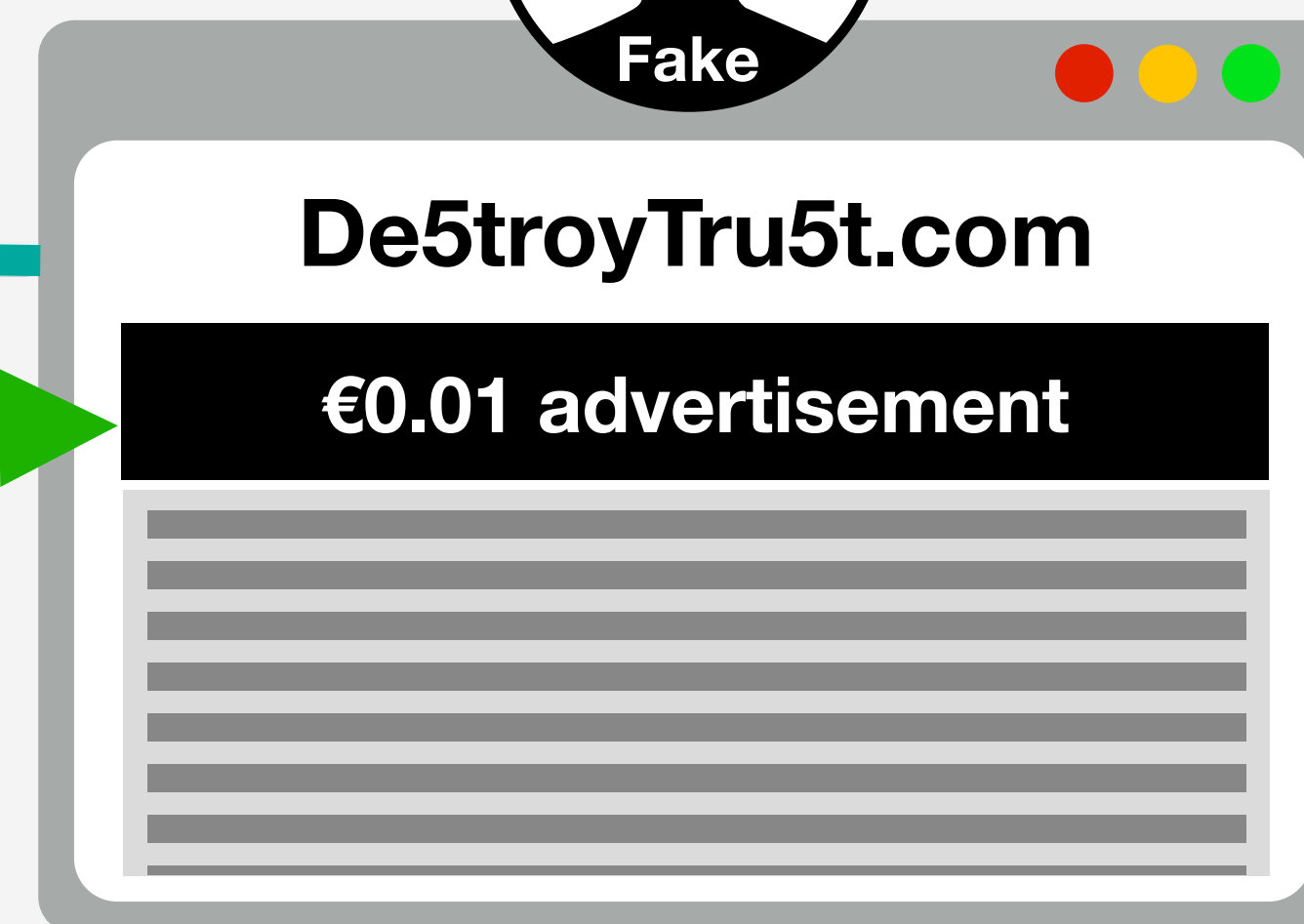
Step 1.
A bot masquerading
as a human visits
The Daily Bugle



Step 2.
Bid request
broadcasts personal
data about Bot

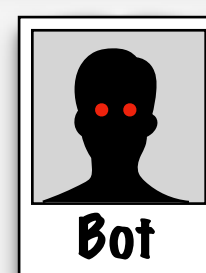
Step 6.
Bid request
announces Bot is
here

Step 5.
Later, an
untrustworthy website
buts bot traffic



Step 4.
The Daily Bugle is
paid €1 to show ad

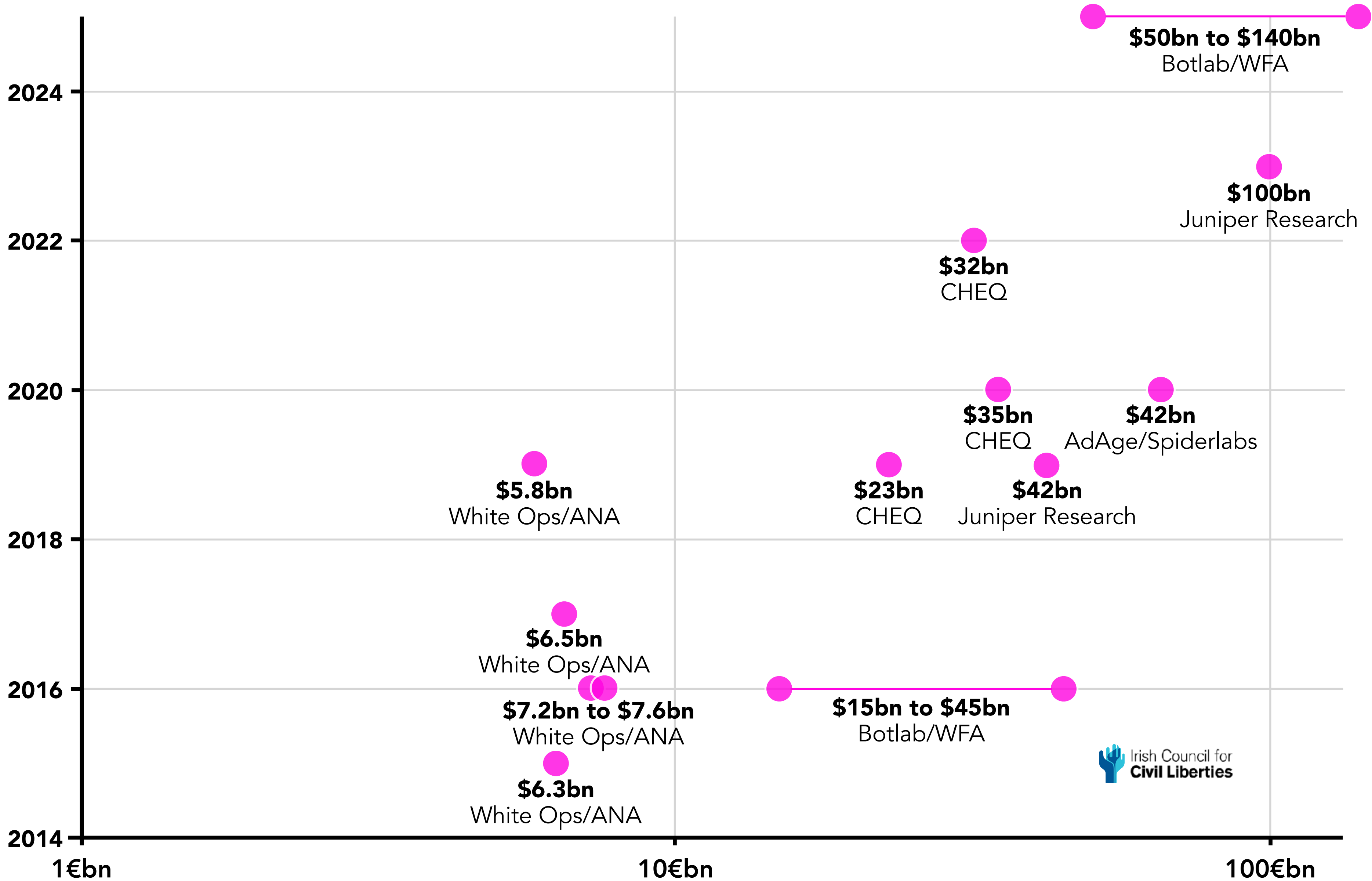
Step 3.
100s of companies in the ad
auction can now re-identify
Bot as a *Daily Bugle* reader



Step 7.
De5troyTru5t.com is paid
€0.01 to show ad to Bot



Estimate of annual "ad fraud", € Billions



RTB is the biggest data breach ever. Repeated daily.

- 1. Data leakage exposes everyone to profiling, and thus manipulation, personalised hate & hysteria.**
- 2. Data leakage suppresses journalism ad prices, and also diverts advertising spending away from journalism (to fraud and to “adtech tax”).**
- 3. Data leakage makes disinformation profitable: it allows disinformation media to monetise worthy media’s audience (“audience arbitrage”).**

Johnny.ryan@iccl.ie