



Measuring and mitigating risks with AI-driven information targeting

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<https://www.lix.polytechnique.fr/~goga/>

Trustworthy AI Symposium, Criteo, 21 Jan 2025, Paris

Personality-based political advertising

Cambridge Analytica Scandal

Agreeableness: “A Safer World for Our Children”



Conscientiousness: “A Promise to Keep American Strong For Our Children”



Extraversion: “Leadership – Support Thom Tillis for US Senate”



Openness: “Refugee – Support Thom Tillis”



<https://qz.com/1782348/cambridge-analytica-used-these-5-political-ads-to-target-voters/>

Foreign interference through online ads

The Russian Internet Research Agency

LGBT United
Sponsored · Like Page

You can color your own Bernie Hero!

There is a new coloring book calling "Buff Bernie: A coloring Book for Berniacs" is full of very attractive doodles of Bernie Sanders in muscle poses.

The author of the book said that she wanted people to stop taking this whole thing too serious. The coloring is something that suits for all people. ...
[See More](#)



40 Reactions 2 Comments 3 Shares

Like Comment Share

Suggested Page

Secured Borders
Sponsored

Every man should stand for our borders! Join!



Secured Borders
News & Media Website
134,943 people like this.

Like Page

Army of Jesus
Sponsored · Like Page

Today Americans are able to elect a president with godly moral principles. Hillary is a Satan, and her crimes and lies had proved just how evil she is. And even though Donald Trump isn't a saint by any means, he's at least an honest man and he cares deeply for this country. My vote goes for him!



97 Reactions 15 Comments 29 Shares

Like Comment Share

Advertising technology enables information targeting

Online advertising platforms



Target people *interested in alternative medicine*



Target people *with far-right political preferences*

Advertising technology enables information targeting

Online advertising platforms



Target people *interested in alternative medicine*



Target people *with far-right political preferences*

This technology gives (everyone) the ability to use users' personal data to manipulate them!

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This technology gives (everyone) the ability to use users' personal data to manipulate them!

Risks go beyond disinformation — truthful information or opinions can be weaponized

What safeguards to implement?

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1. Transparency

“Facebook Ads Monitor: An Independent Auditing System for Political Ads on Facebook.”M. Silva, L. Santos de Oliveira, A. Andreou, P. Vaz de Melo, O. Goga, F. Benevenuto. **The Web Conference (WWW)**, April 2020.

The Meta Ad Library for political ads

Central repository of political ads running on the platform

The screenshot shows the Facebook Ad Library interface. At the top, there's a search bar with "clinton" entered. Below it are filter options: "Filter By: All", "Delivery by Region", "Active and Inactive", "Advertiser", "Disclaimer", and "Sort by". There are also buttons for "Platform", "Potential Reach", and "Impressions by Date". The main content area displays three ads, all marked as "Inactive".

- Ad 1:** Sponsored by Councillor Michael Brunker. Text: "FREE TAFE FOR UNDER 25s: A re-elected Palaszczuk Government will make TAFE qualifications and apprenticeships free for all Queenslanders under the age of 25. That's a \$21 million investment for Certificate 3 TAFE courses in 26 priority skills areas – such as mining and...". Image: A group of young people celebrating. Advertiser: ANNASTACIA PALASZCZUK.
- Ad 2:** Sponsored by Councillor Michael Brunker. Text: "I stand with my leader Annastacia Palaszczuk MP with pride. She has kept Queensland safe. #QUEENSLANDER". Image: A group of people walking outdoors. Advertiser: ANNASTACIA PALASZCZUK.
- Ad 3:** Sponsored by Councillor Michael Brunker. Text: "WELCOME TO BOWEN STATE HIGH SCHOOL. All Welcome PARENTS CITIZENS ASSOCIATION MEETING OF EACH MONTH". Image: Michael Brunker speaking at a school event. Advertiser: LABOR FOR BURDEKIN.

Each ad card includes a "See Ad Details" button and a "Amount spent (AUD): <A\$100" indicator.

How many political ads are missing from the Ad Library?

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Each ad card includes a "See Ad Details" button and a summary of performance metrics like "Amount spent (AUD): <A\$100" and "Potential Reach: 10K - 50K people".

How many political ads are missing from the Ad Library?

Challenge: How to audit the completeness?

Measurement methodology

Challenge: **Limited access to data** due to the closed nature of online platforms — no access to **what ads and posts** people see on Facebook/Twitter/Google

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Solution: New **measurement approach** based on **donations of personal data to science**



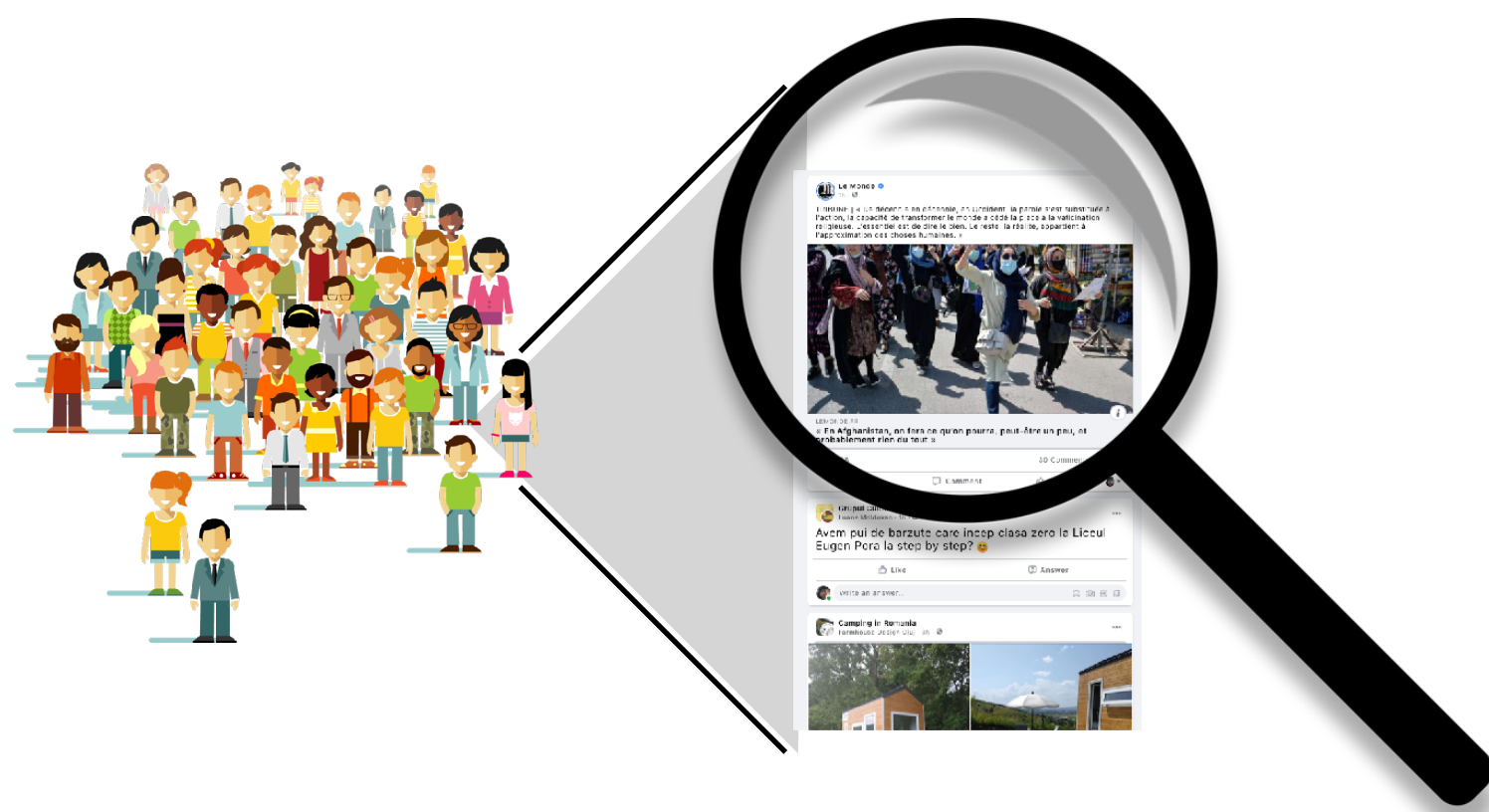
AdAnalyst

We designed a **software tool** to enable data donations, that captures the non-public **content** users are **exposed to on social media**

Measurement methodology

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OPINIÃO
Ricardo R. Campos, Juliano Maranhão e Fabrício Benevenuto: Fake news e a crônica do caixa 2 anunciado

FOLHA DE S.PAULO  UOL
o melhor conteúdo



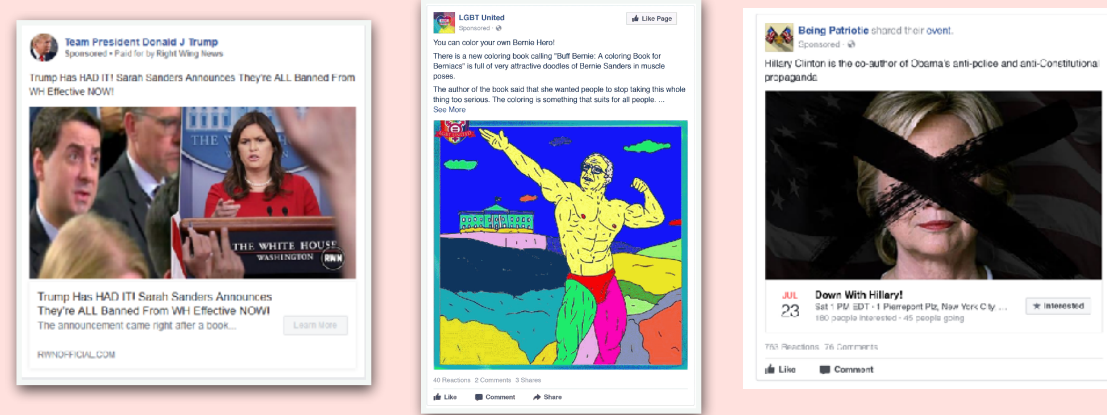
2 recruiting sessions:

In 2018, 2000 Brazilian users (239k ads from 40k advertisers)

In 2020, 890 U.S. users (102k ads from 40k advertisers)

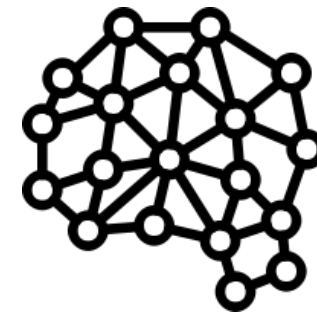
Political ad detection

Political ads (+)



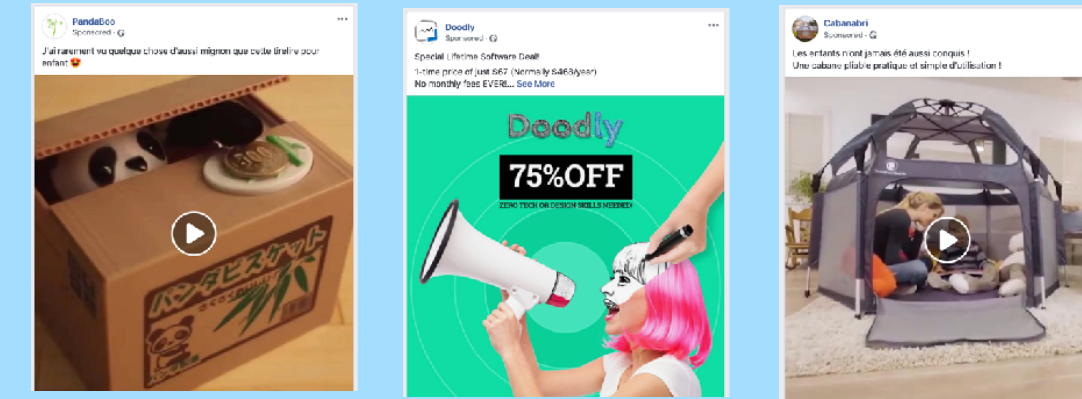
[use data from compliant advertisers, 10k ads]

Supervised ML algo



over 0.94 accuracy
(80% TPR for 1% FPR)

Non political ads



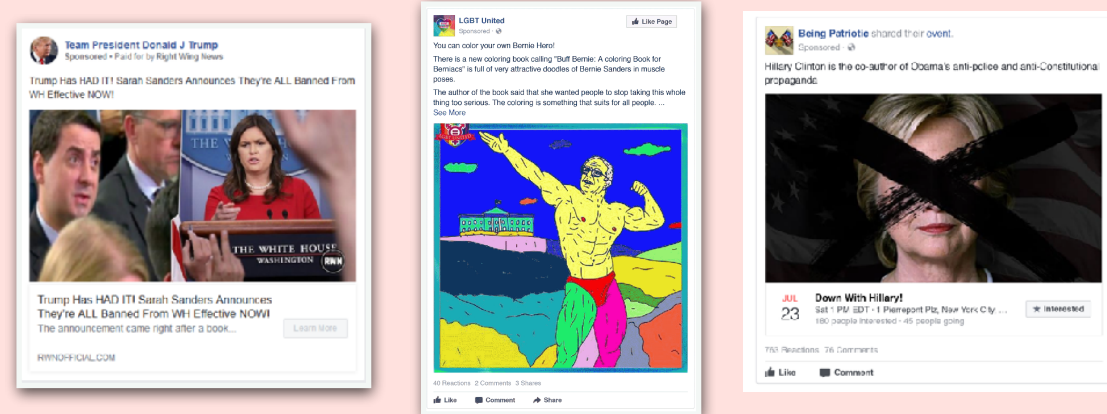
[3 PhD students reviewed 10k random ads]

[Naive Bayes, Random Forest, Log. Regression, SVM, Gradient Boosting, Convolution Neural Networks (CNN); Word2Vec with 300 dimensions; 10 fold-cross validation]

Political ad detection

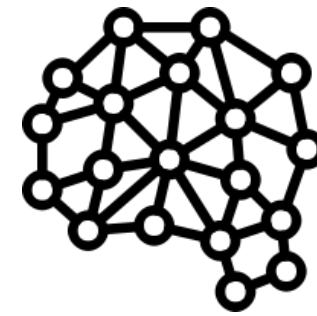


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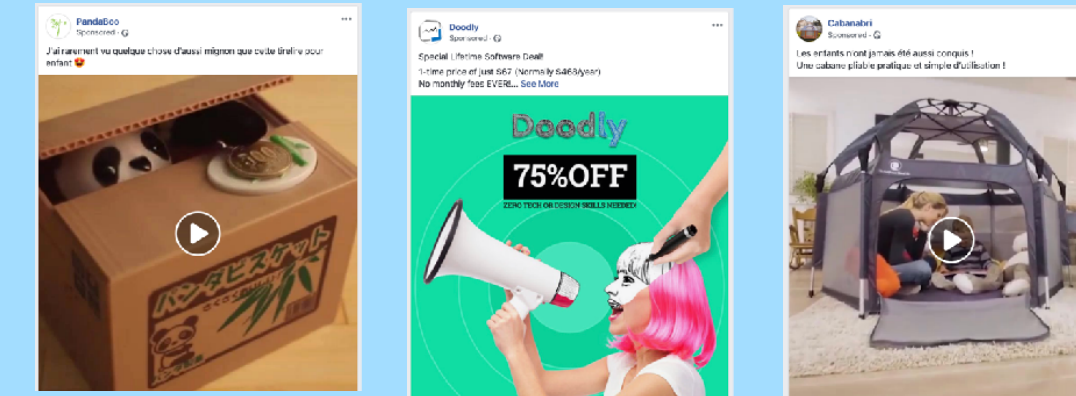
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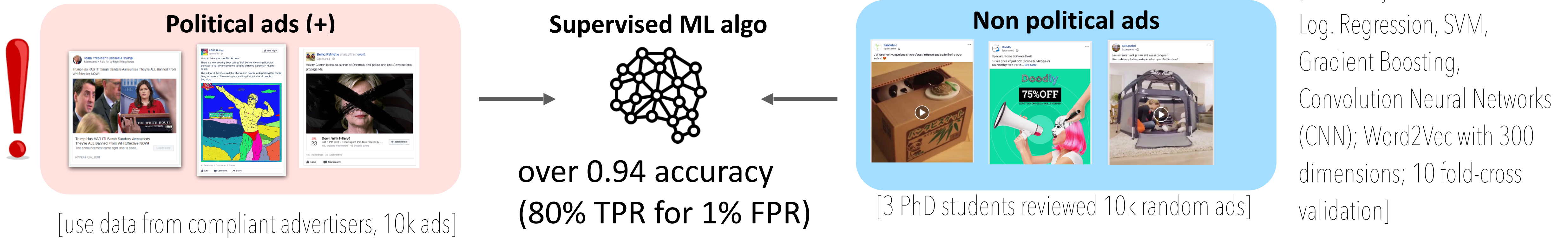


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Political ad detection



Half of the political ads we detected were missing from the Political Ad Library

Impact on law: Digital Services Act (DSA, 2023) — we submitted evidence and asked the European Commission for Ad Libraries that contain all ads

- ▶ increase the transparency and accountability for all users
- ▶ access to data to the whole research community

Article 39

Additional online advertising transparency

1. Providers of very large online platforms or of very large online search engines that present advertisements on their online interfaces shall compile and make publicly available in a specific section of their online interface, through a searchable and reliable tool that allows multicriteria queries and through application programming interfaces, a repository containing the information referred to in paragraph 2, for the entire period during which they present an

What safeguards to implement?

1. Transparency

- ▶ It can be good, but it is often not well-implemented

2. Restrictions

"Understanding the Complexity of Detecting Political Ads." V. Sosnovik , O. Goga. *The Web Conference (WWW)*, April 2021.

"Exploring the Online Micro-targeting Practices of Small, Medium, and Large Businesses" Salim Chouaki, Islem Bouzenia, Oana Goga, Beatrice Roussillon, *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, 2022

"Client-side and Server-side Tracking on Meta: Effectiveness and Accuracy" Asmaa El fraihi, Nardjes Amieur, Walter Rudametkin, Oana Goga *PETS*, 2024.



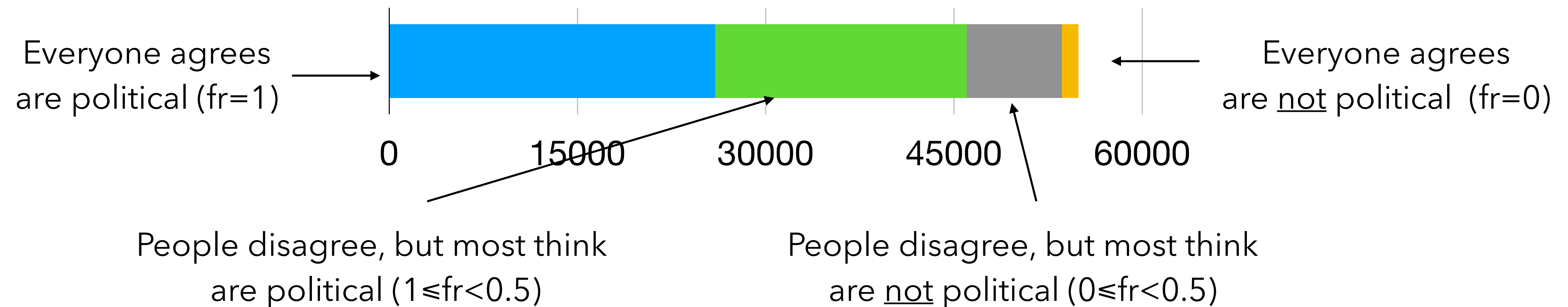
Restrictions

Considered by the European Commission and Parliament

- Ban or restrict political ads
 - Can we differentiate political ads from the rest reliably?

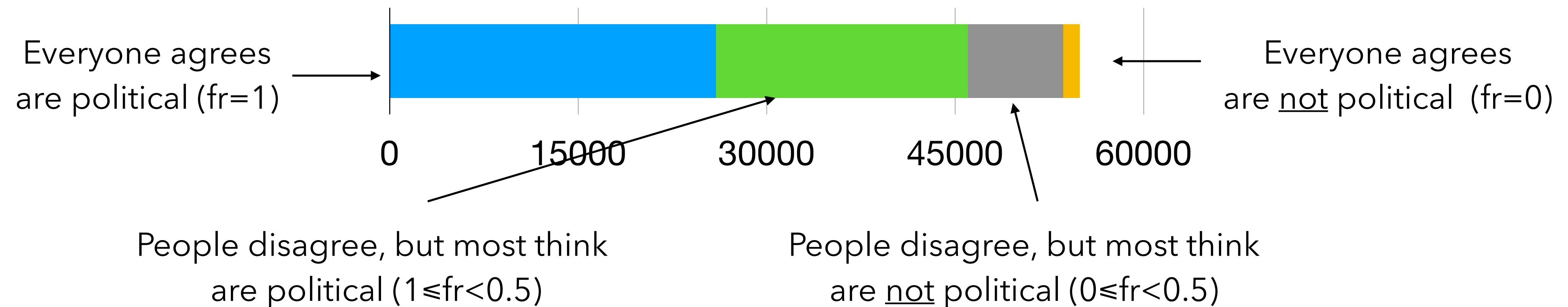
Do people agree what ads are political?

- We analyze a dataset of 55k ads labeled as political by at least one user



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- We analyze a dataset of 55k ads labeled as political by at least one user



People disagree on more than 50% of ads!

Hard to apply legislation!

Reasons for disagreement


- ▶ **Ads about social issues are the troublemakers!**
 - Some issue ads have highly political content
 - Some issue ads just address **humanitarian issues**

WE RUN UC **AFSCME 3299**
Sponsored · Paid for by AFSCME Local 3299
Stand up for immigrant families. Tell UC to cancel its contracts with ICE collaborators now!

Mission Sponsored · Paid for by Boston Rescue Mission
It's tragic to be all alone and hungry. Your gift can bring hearty, nutritious meals to men and women who struggle with homelessness.

Reasons for disagreement

- ▶ **Ads about social issues are the troublemakers!**
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 - Some issue ads just address humanitarian issues
- ▶ Can we draw a line between political and humanitarian?



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Impact on law: European Democracy Action Plan (EDAP)

Invited by DG Justice and Consumers (European Commission) + Ambassadeur pour le Numérique to give my input

- ▶ Definition of political ads
- ▶ Click-through rate

On Microtargeting Socially Divisive Ads: A Case Study of Russia-Linked Ad Campaigns on Facebook F.
 Ribeiro, K. Saha, M. Babaei, L. Henrique, J. Messias, O. Goga, F. Benevenuto, K. P. Gummadi, E. M. Redmiles
ACM Conference on Fairness, Accountability, and Transparency (ACM FAT*, now FAccT), January 2019

Article 3
Definitions

For the purpose of this Regulation, the following definitions apply:

- (1) 'service' means any self-employed economic activity, normally provided for remuneration, as referred to in Article 57 TFEU;
- (2) 'political advertising' means the preparation, placement, promotion, publication, delivery or dissemination, by any means, of a message, normally provided for remuneration or through in-house activities or as part of a political advertising campaign:
 - (a) by, for or on behalf of a political actor, unless it is of a purely private or a purely commercial nature; or
 - (b) which is liable and designed to influence the outcome of an election or referendum, voting behaviour or a legislative or regulatory process, at Union, national, regional or local level;

(58) In order to ensure increased transparency of political advertising, it is necessary to collect and present in the relevant transparency notice information on the reach of political advertising, and individuals' engagement with it. The reach of the message relates to data which enables quantifying geographical distribution and number of individuals who viewed, received or otherwise interacted with the political advertising, including the number of views, impressions and clicks. Engagement with the message relates to data which enables quantifying the interactions of individuals with online political advertising, measured by various means, including the period of interaction with the political advertisement. Relevant standards for the preparation of labelling and transparency notices of political advertisements should address the quantification of reach and engagement.

Restrictions



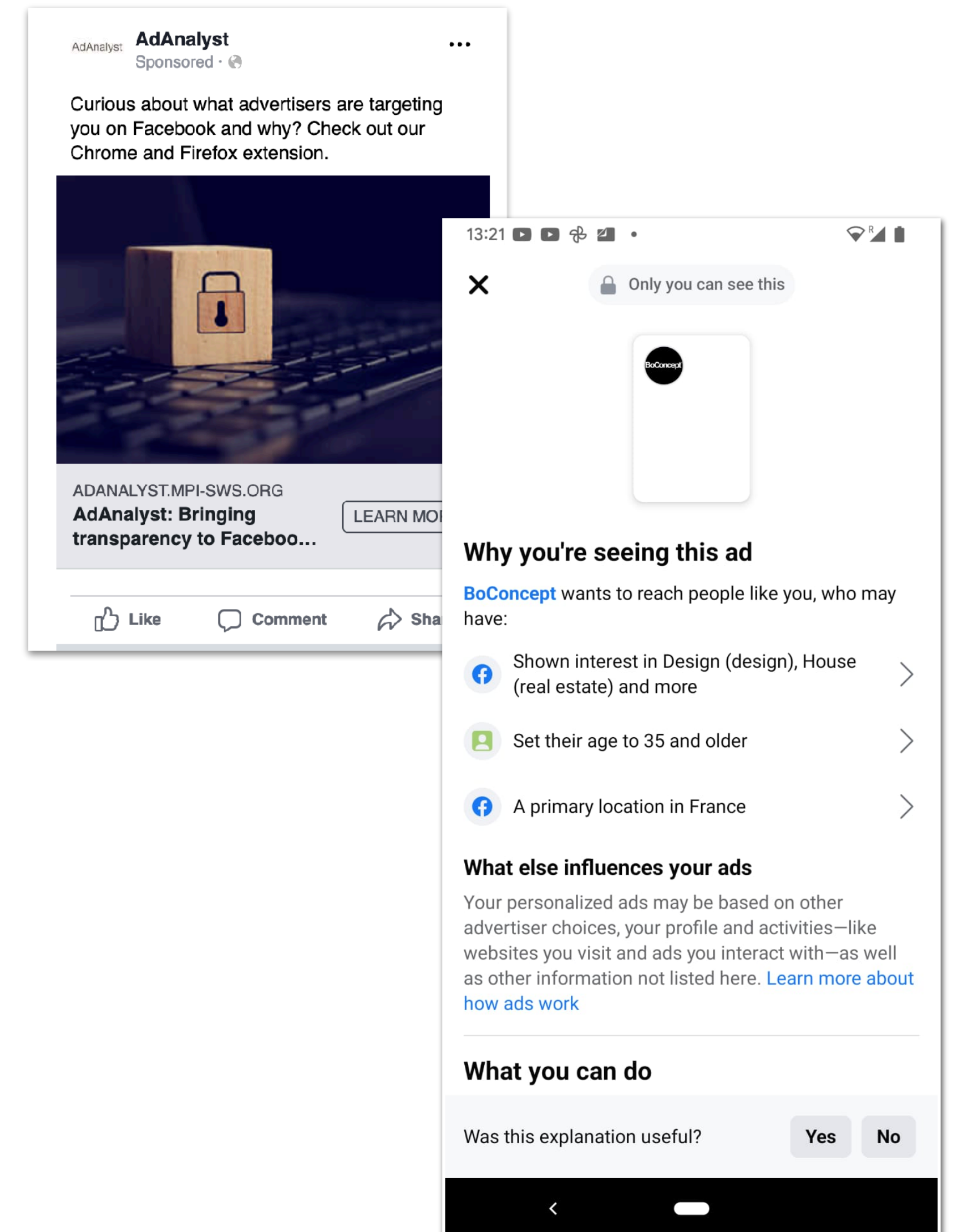
Considered by the European Commission and Parliament

- Ban or restrict political ads
 - Can we differentiate political ads from the rest reliably?
- Ban or restrict micro-targeting in general
 - But what is the economic impact on the ecosystem?
 - To what extent do small and medium-sized businesses use micro-targeting?

Measurement methodology

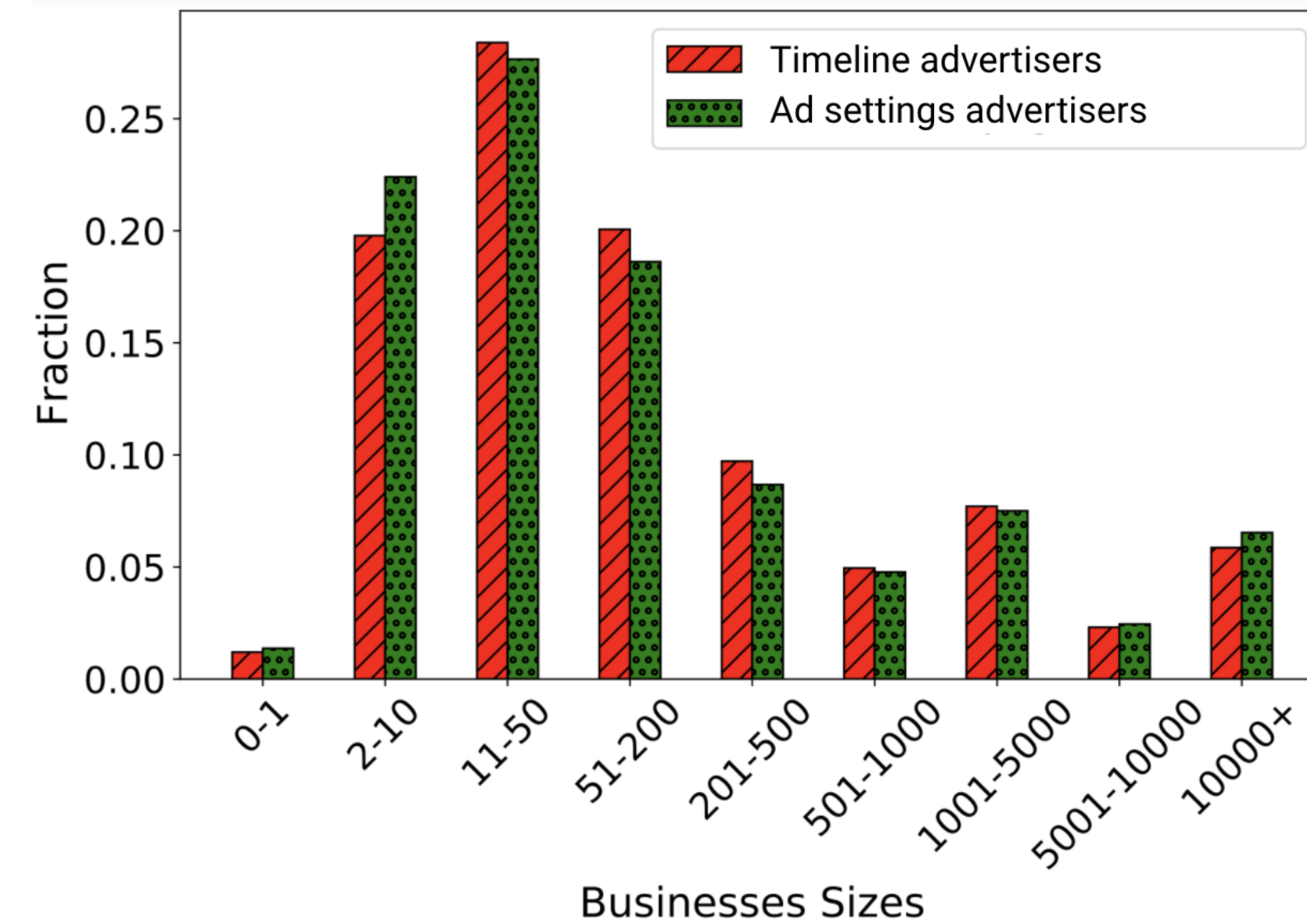
- Use AdAnalyst to collect a **set of ads + how ads were targeted**
 - ▶ Recruited 890 US users on Prolific to install it
 - ▶ 102k ads
- Information about the **business size of advertisers**
 - ▶ Method to match Fb advertisers with LinkedIn businesses

Info about **79k advertisers**

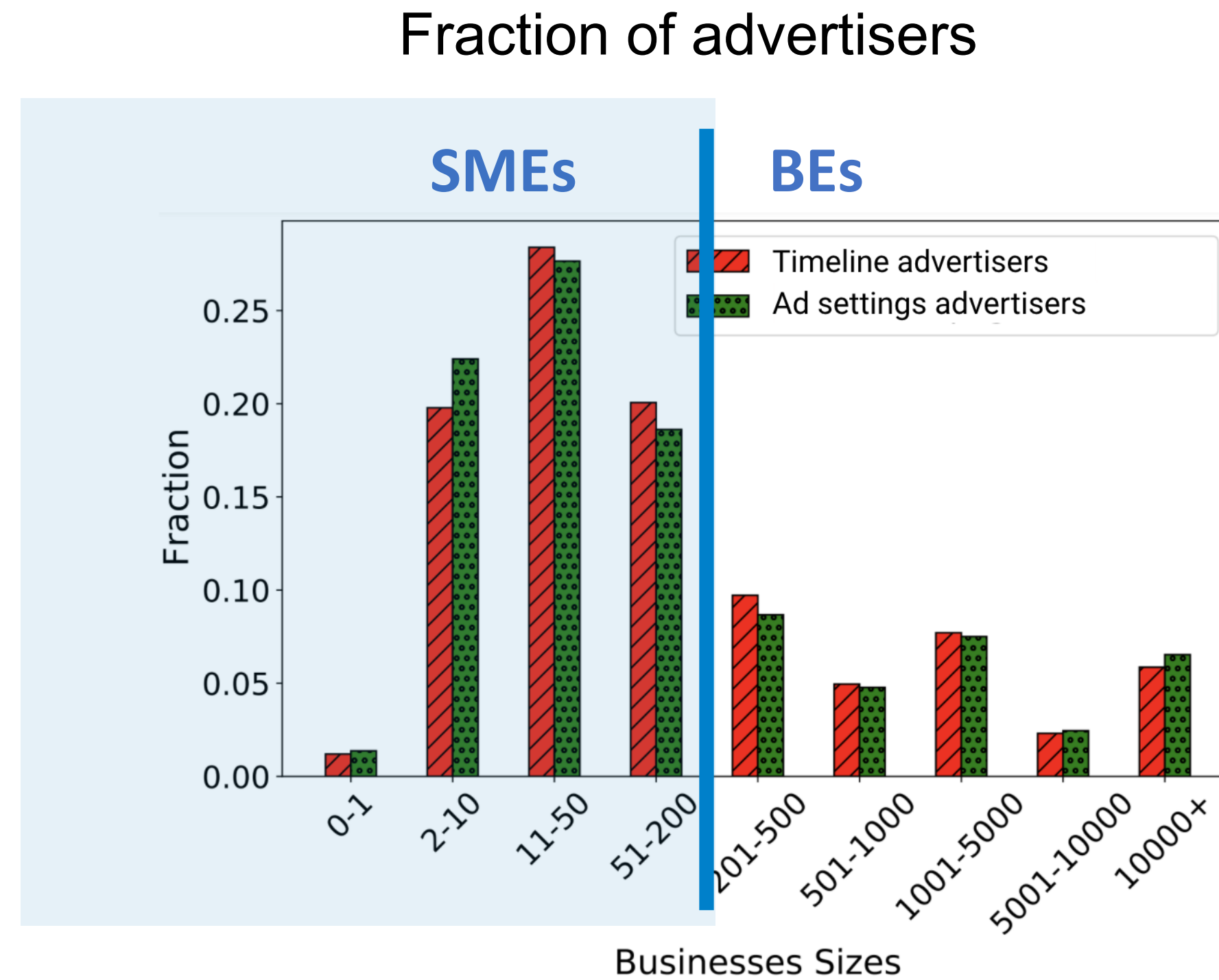


To which extent small businesses advertise on Fb?

Fraction of advertisers

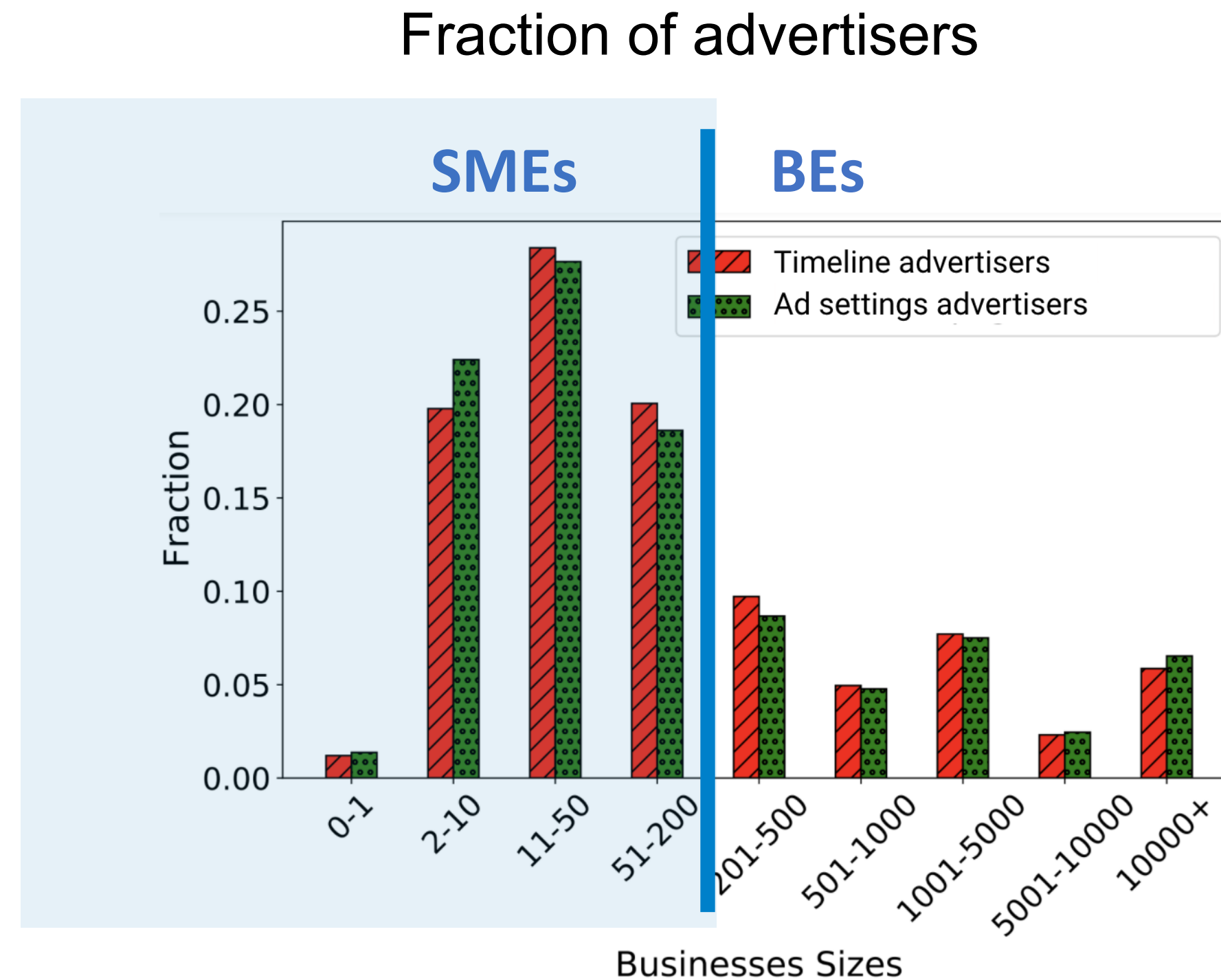


To which extent small businesses advertise on Fb?



Over 70% of advertisers are SMEs

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Over 70% of advertisers are SMEs

Takeaway: Small and medium sized businesses do account for the majority of advertisers and are responsible for the majority of ad impression on Facebook

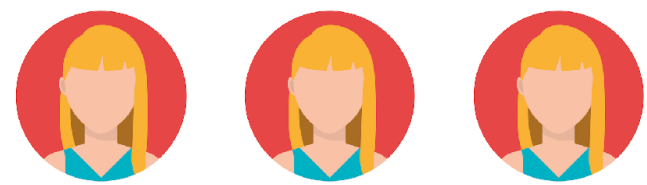
- ▶ Important to assess the economic impact regulations would had on them

Advertiser driven vs. algorithmic driven targeting

Advertiser driven micro-targeting



Blue users



Red users

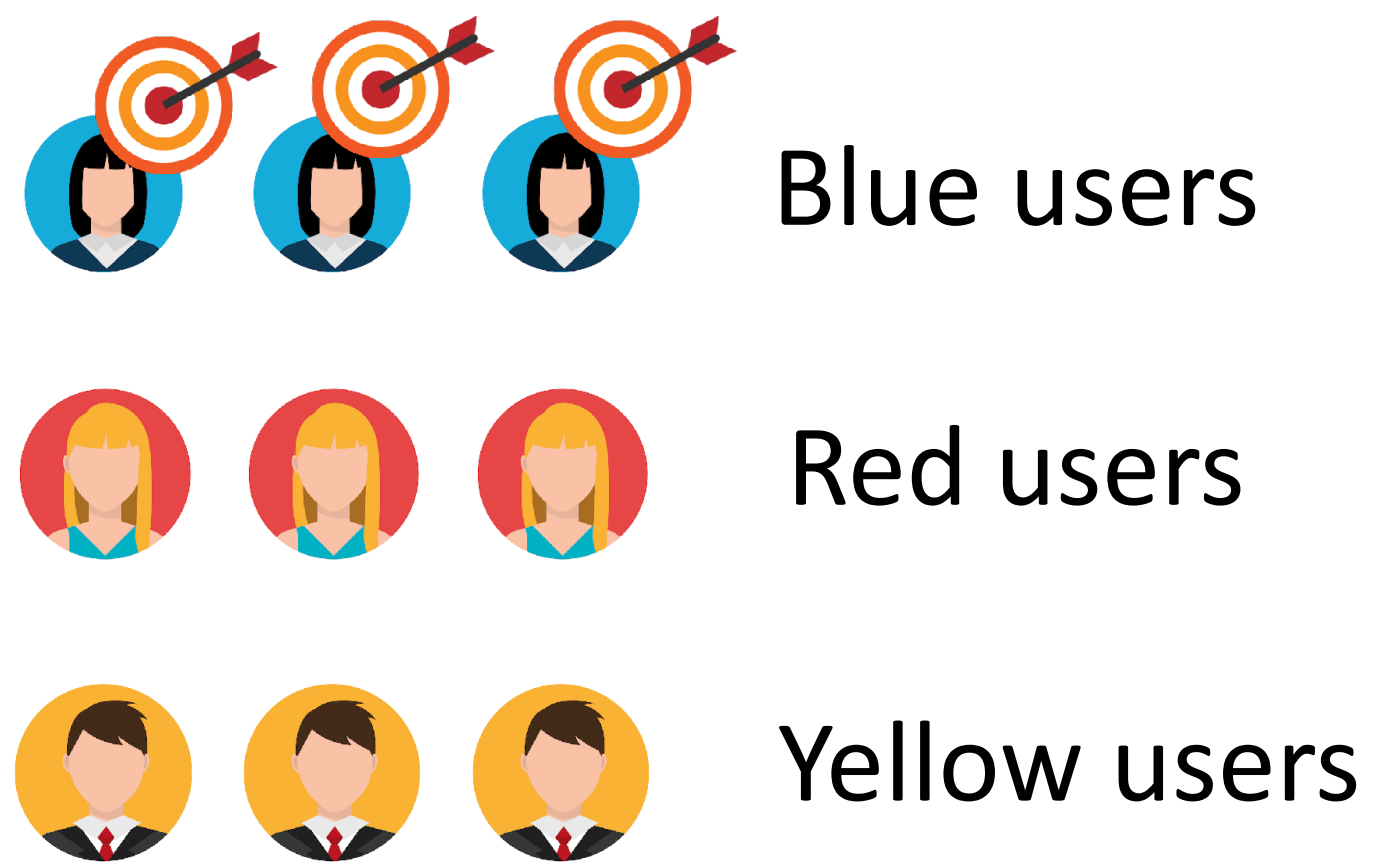


Yellow users

The advertiser specifies the characteristics of its audience

Advertiser driven vs. algorithmic driven targeting

Advertiser driven micro-targeting



The advertiser specifies the characteristics of its audience

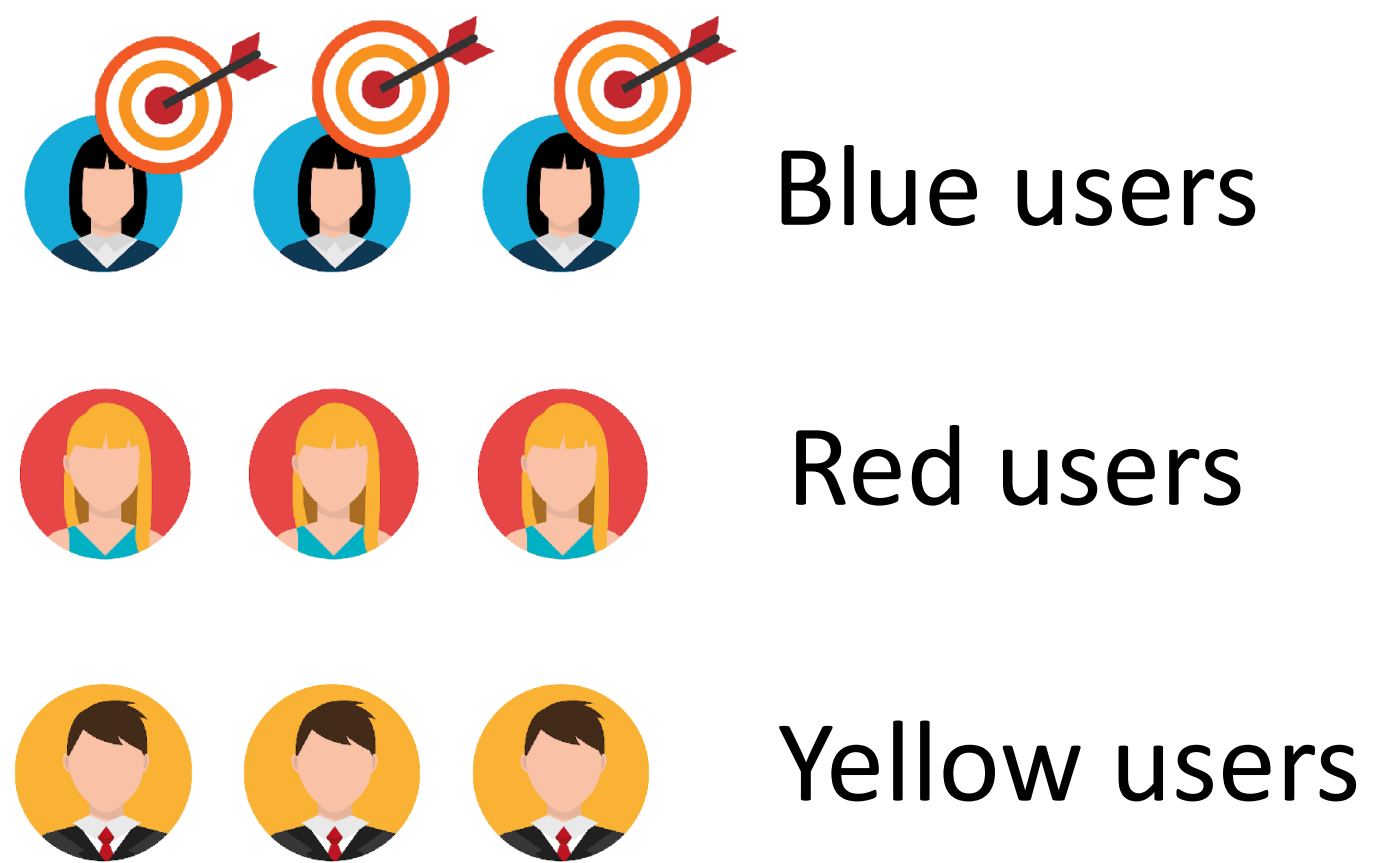
Algorithmic driven micro-targeting/ ad delivery optimization



The advertiser lets the ad platform choose the right audience

Advertiser driven vs. algorithmic driven targeting

Advertiser driven micro-targeting



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Explicit user profiling

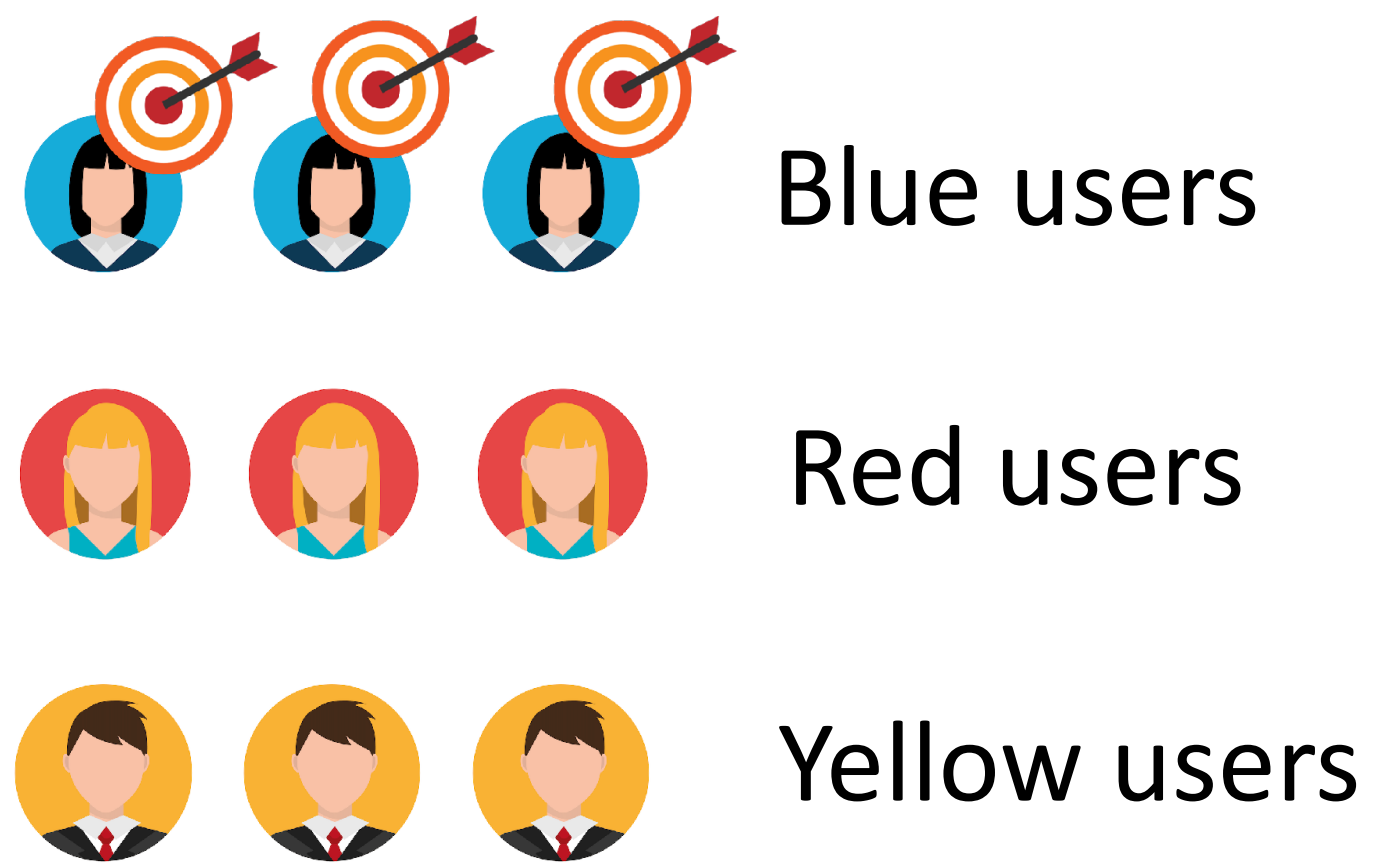
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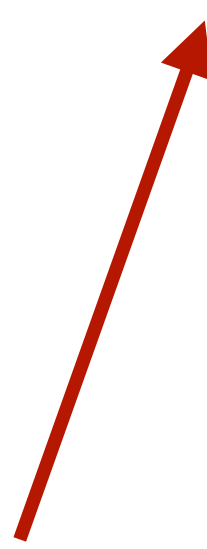
Do businesses use micro-targeting?

	SME (%)	BE (%)
Advertiser-driven micro-targeting	27.7%	30.5%
Algorithmic-driven micro-targeting	72.3%	69.5%

Do businesses use micro-targeting?

Advertiser-driven micro-targeting was 79% in [NDSS'2019] !

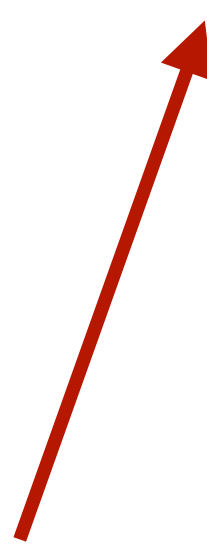
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Takeaway: advertiser-driven micro-targeting is being replaced by algorithmic-driven micro-targeting

- ▶ What new risks brings algorithmic-driven micro-targeting?

Restrictions

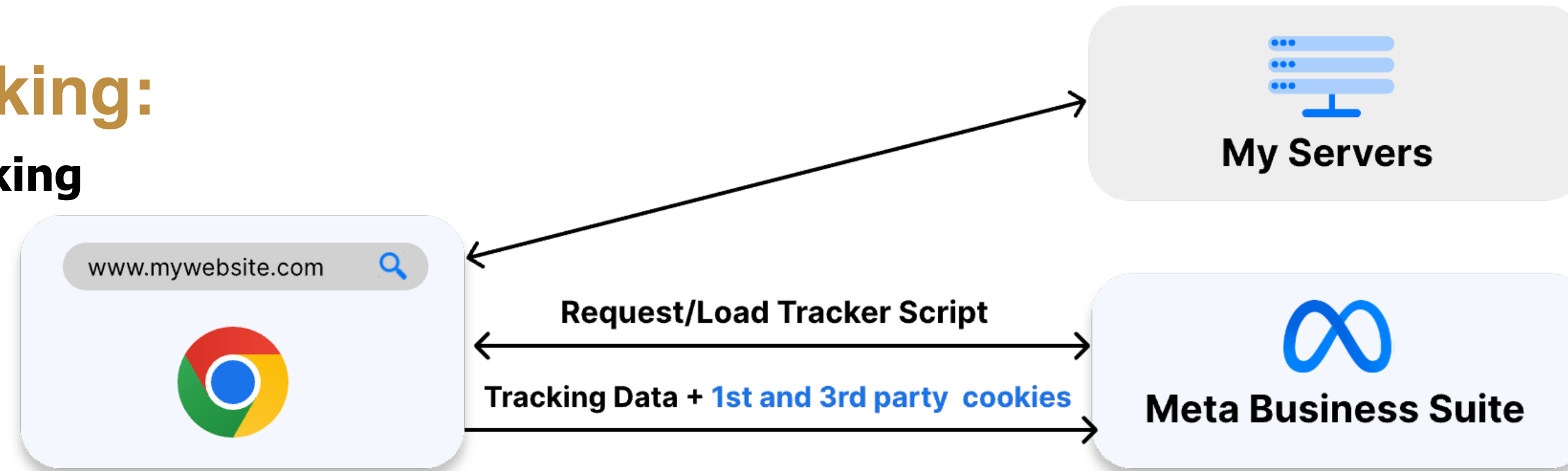


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- Ban or restrict micro-targeting in general
 - But what is the economic impact on the ecosystem?
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- Ban or restrict **third-party cookie tracking**
 - **How effective is server-side tracking on Meta compared to client-side tracking?**

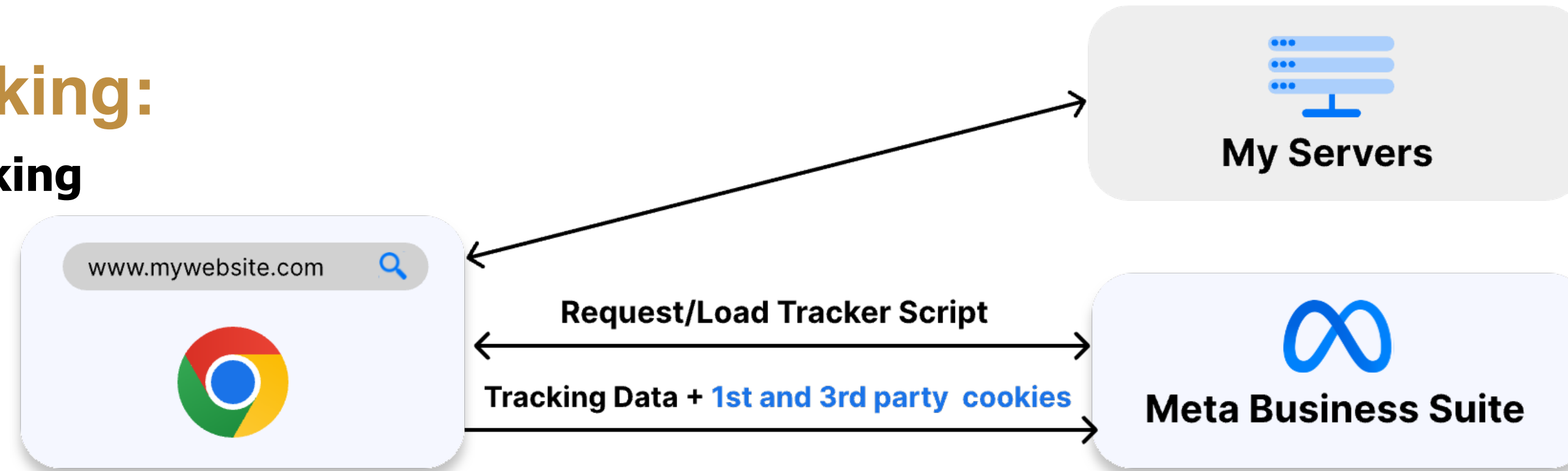
Pixel vs. Conversions API

Third-party Tracking: Meta Pixel-based Tracking

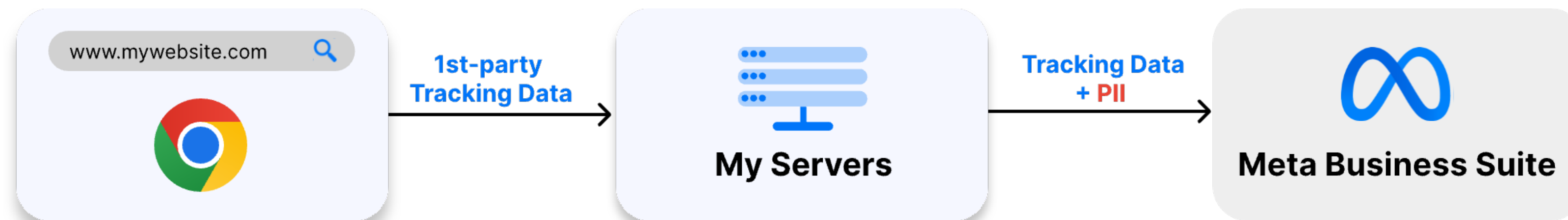


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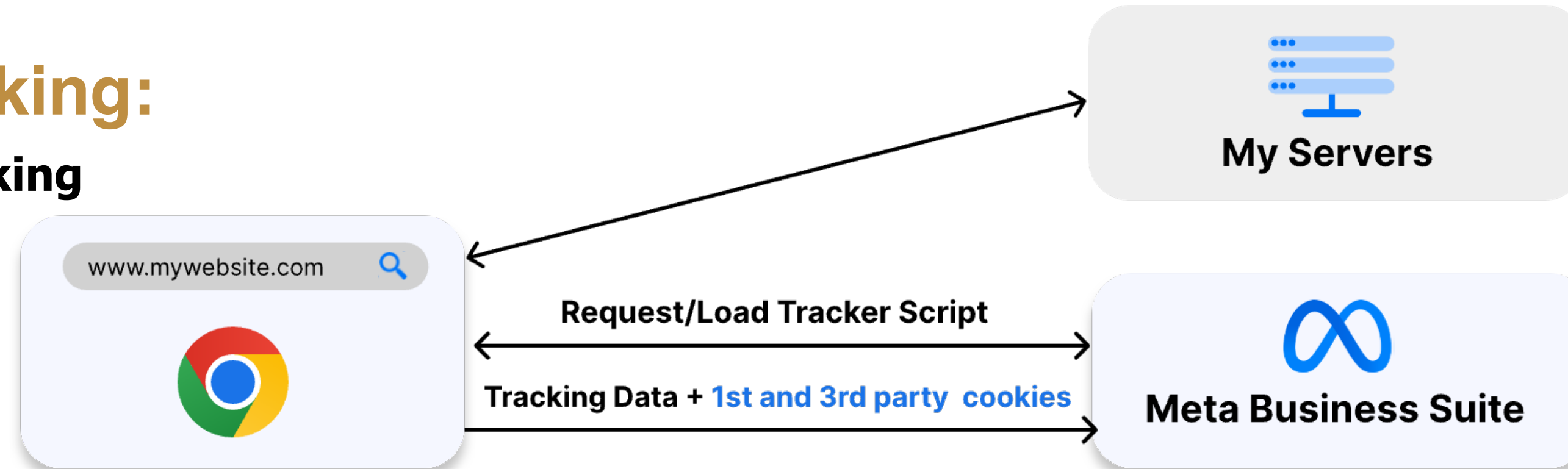


First-party Tracking: Conversions API-based Tracking

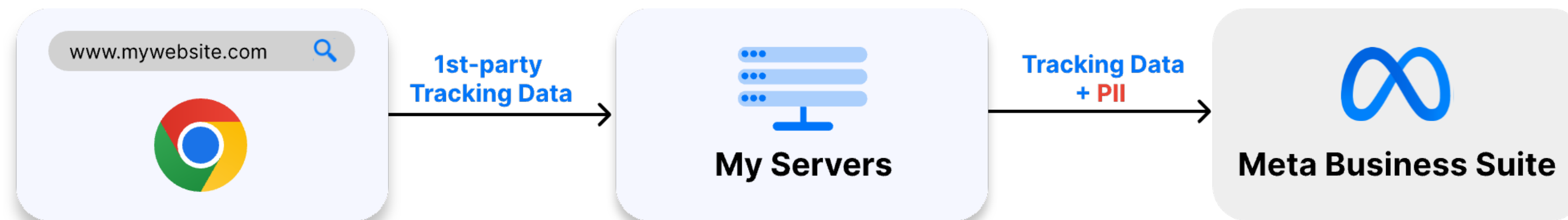


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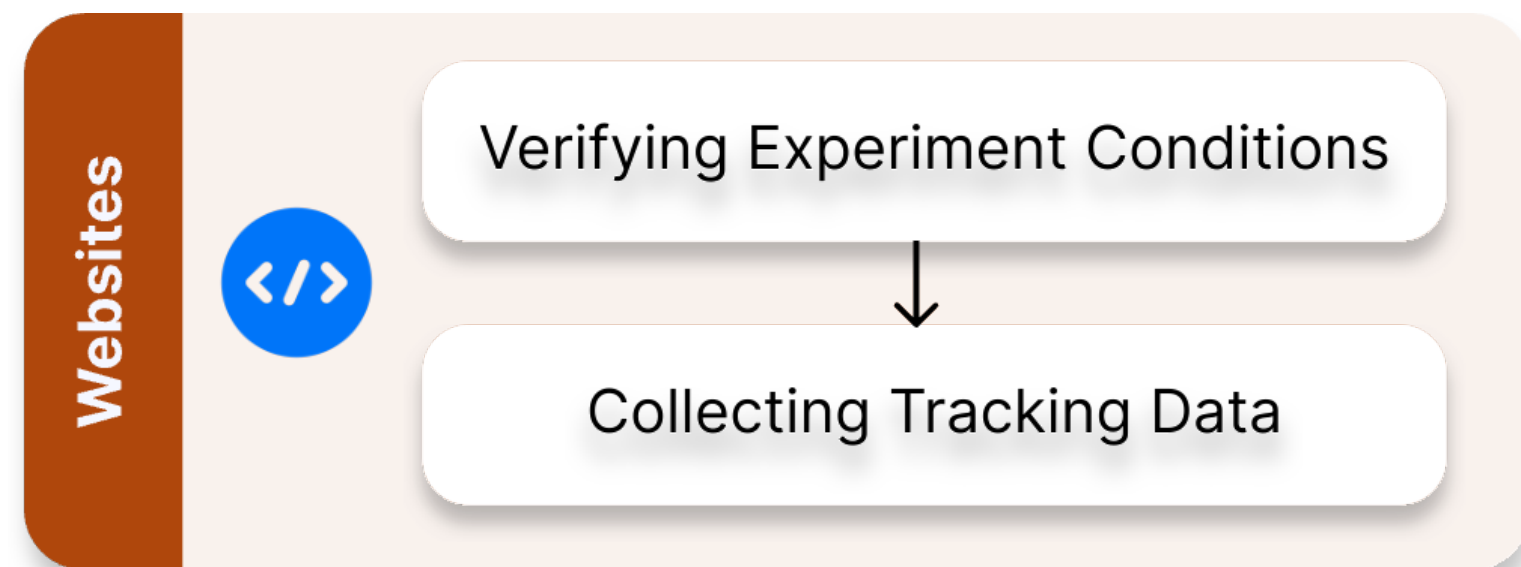
IP, user agent, email

How effective is the Conversions API?

How many social media profiles can I retarget with the Conversions API (vs. Pixel)?

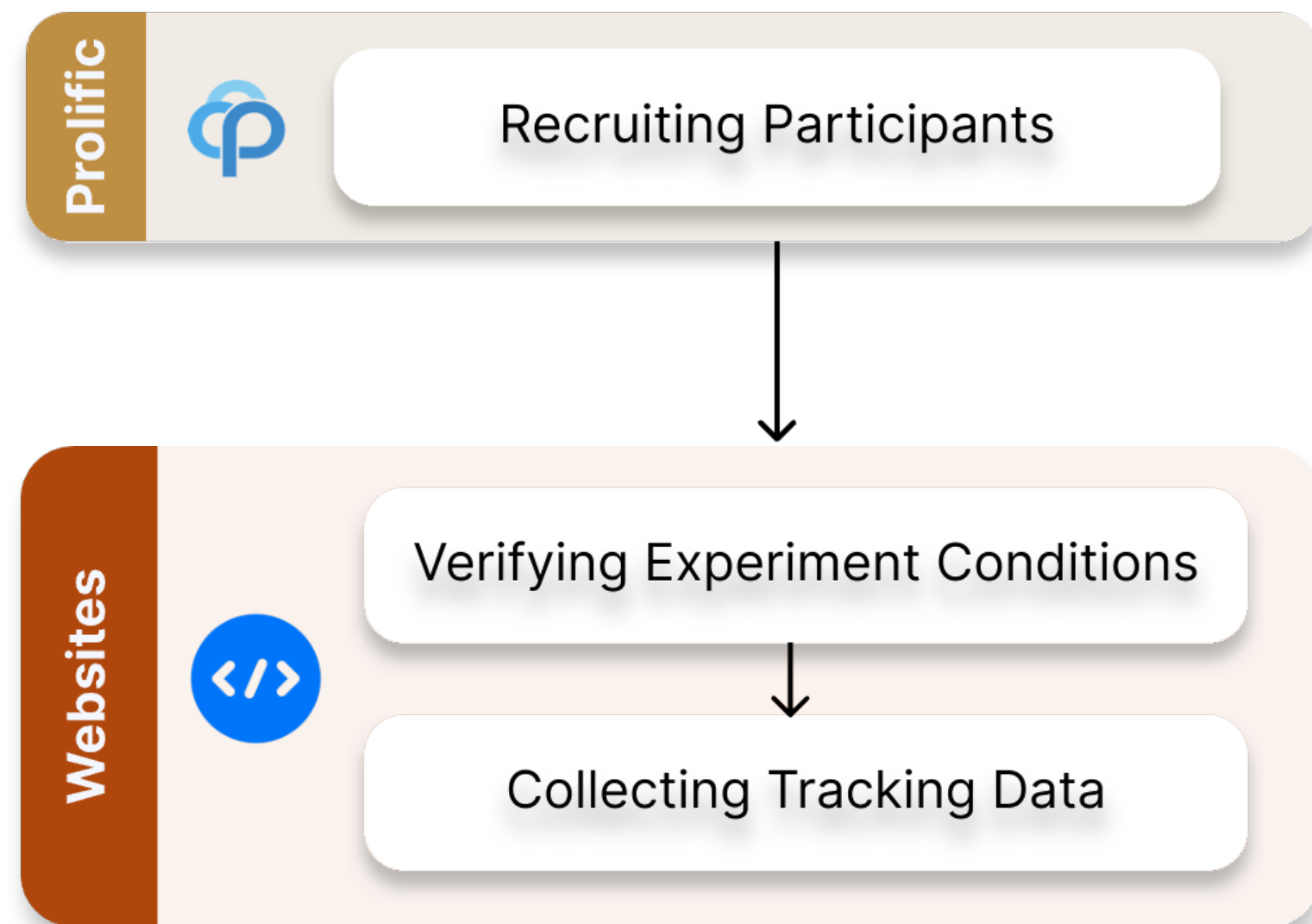
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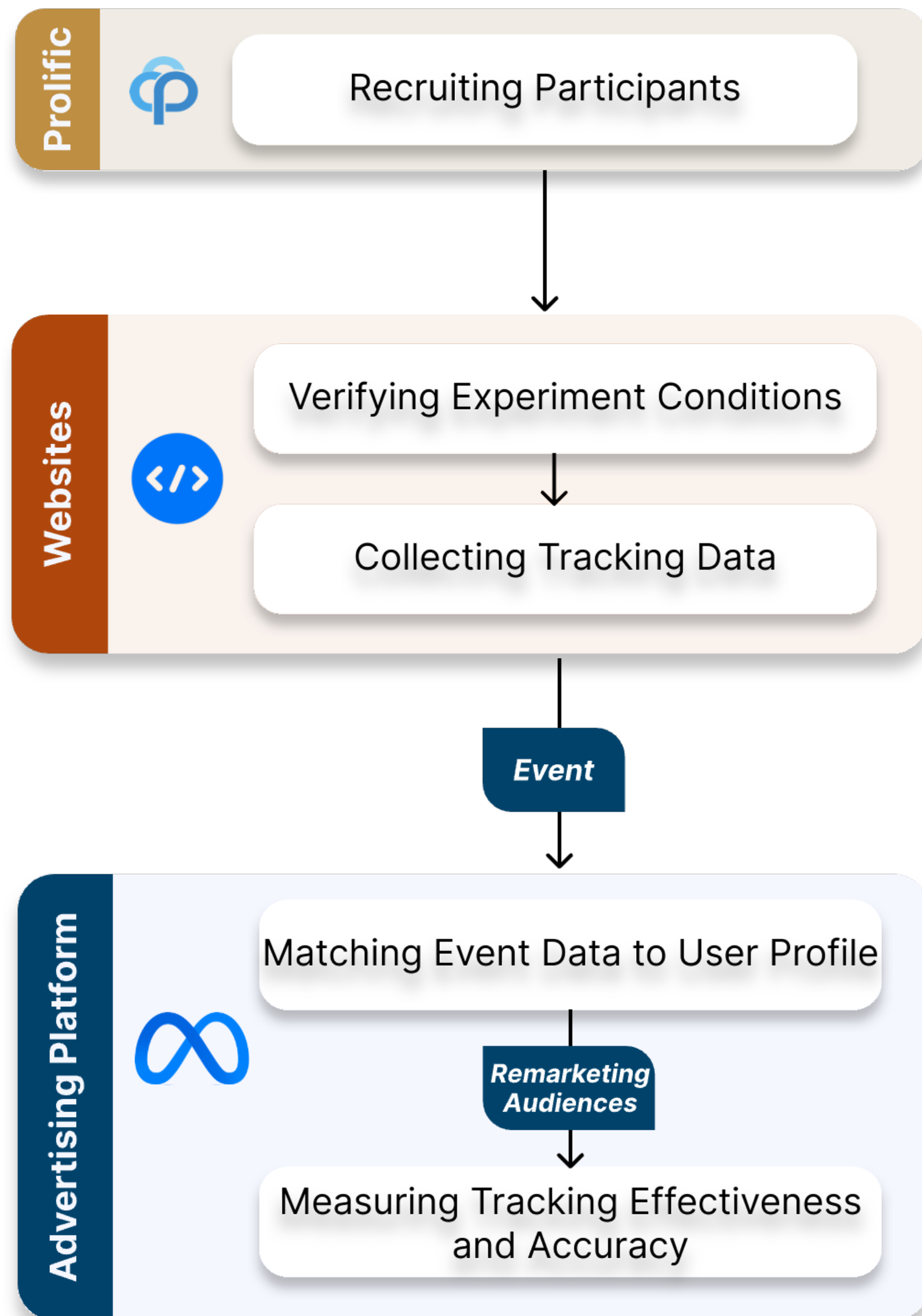
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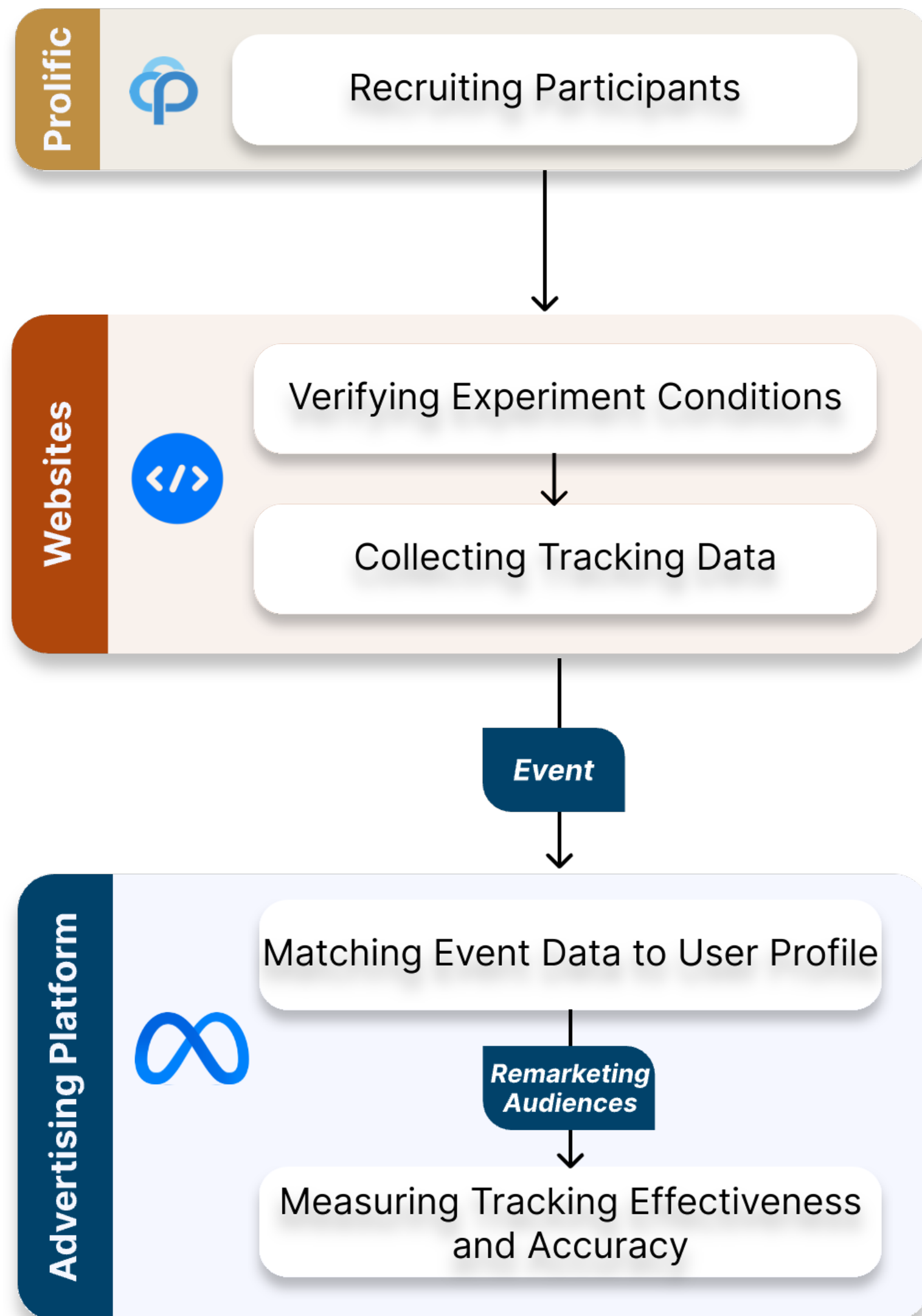
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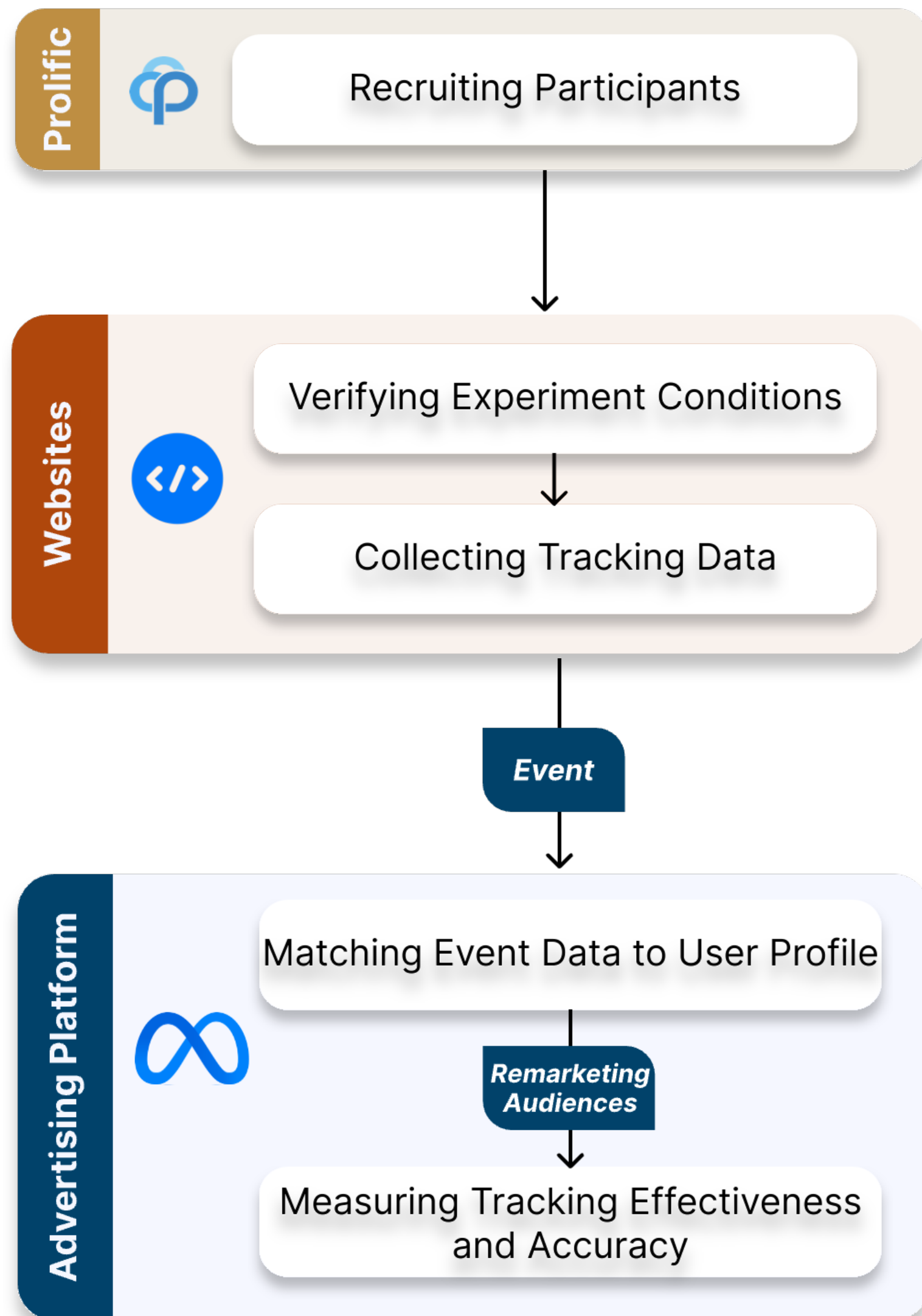


Implementation:

- 2400 Prolific participants
- **Desktop** devices + **Google Chrome** browser
- Reproduced four times in total

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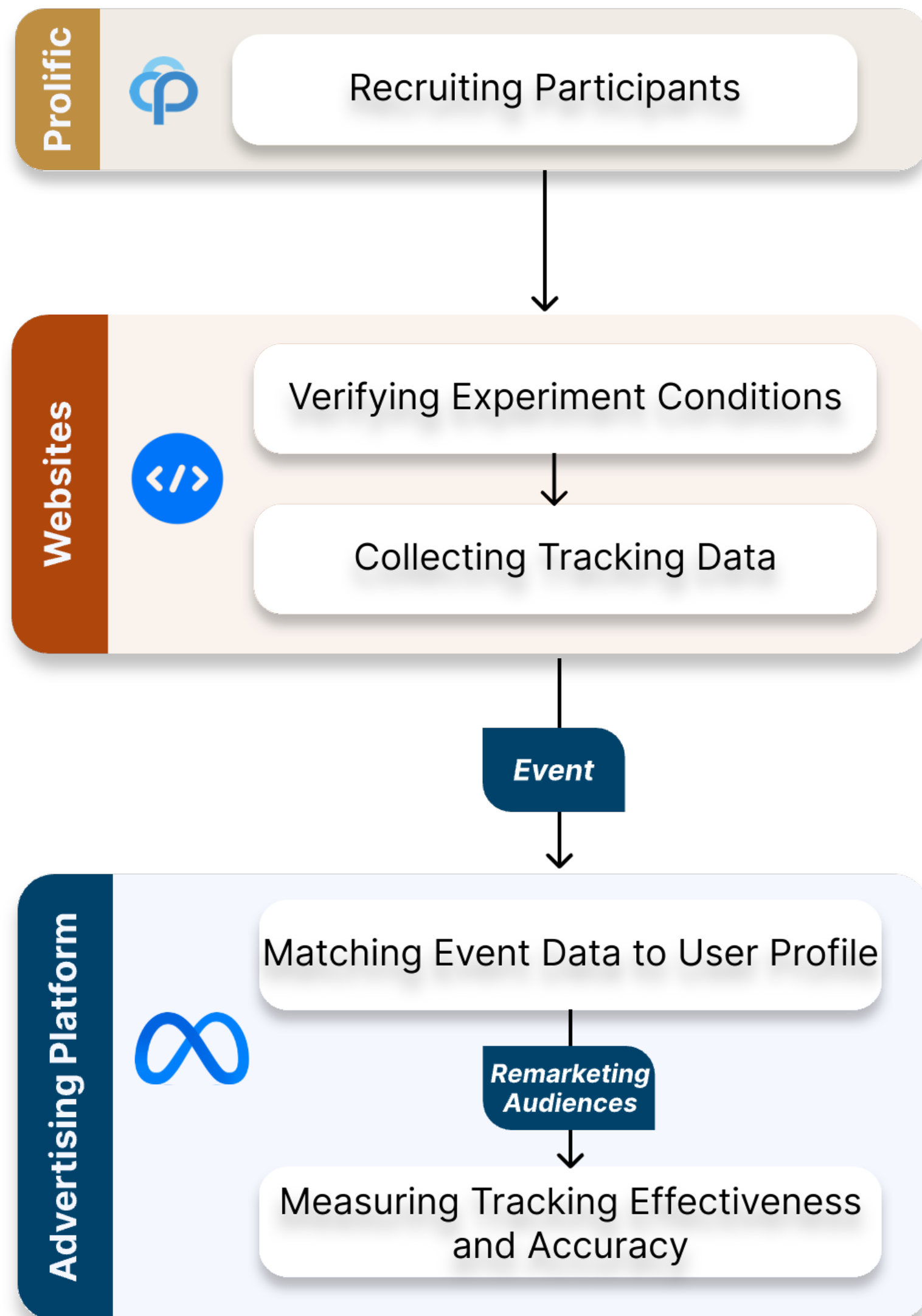
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Pixel **44%** Tracking Effectiveness

CAPI **46%** Tracking Effectiveness IP + user agent

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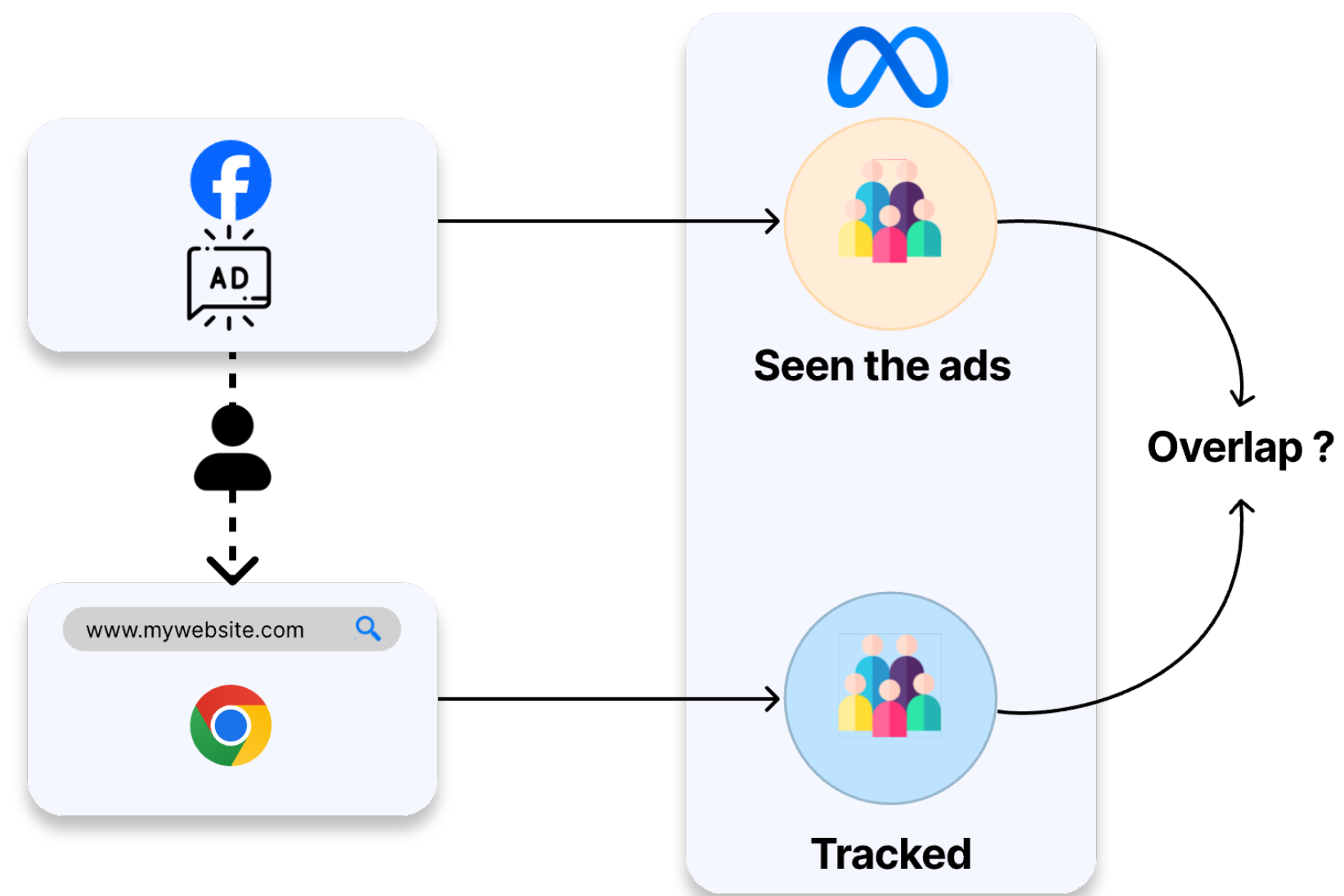
Takeaways: The Conversions API is comparable to Meta's Pixel in terms of effectiveness on desktop devices

How accurate si the Conversions APIs?

Are the retargeted users actually our original website visitors?

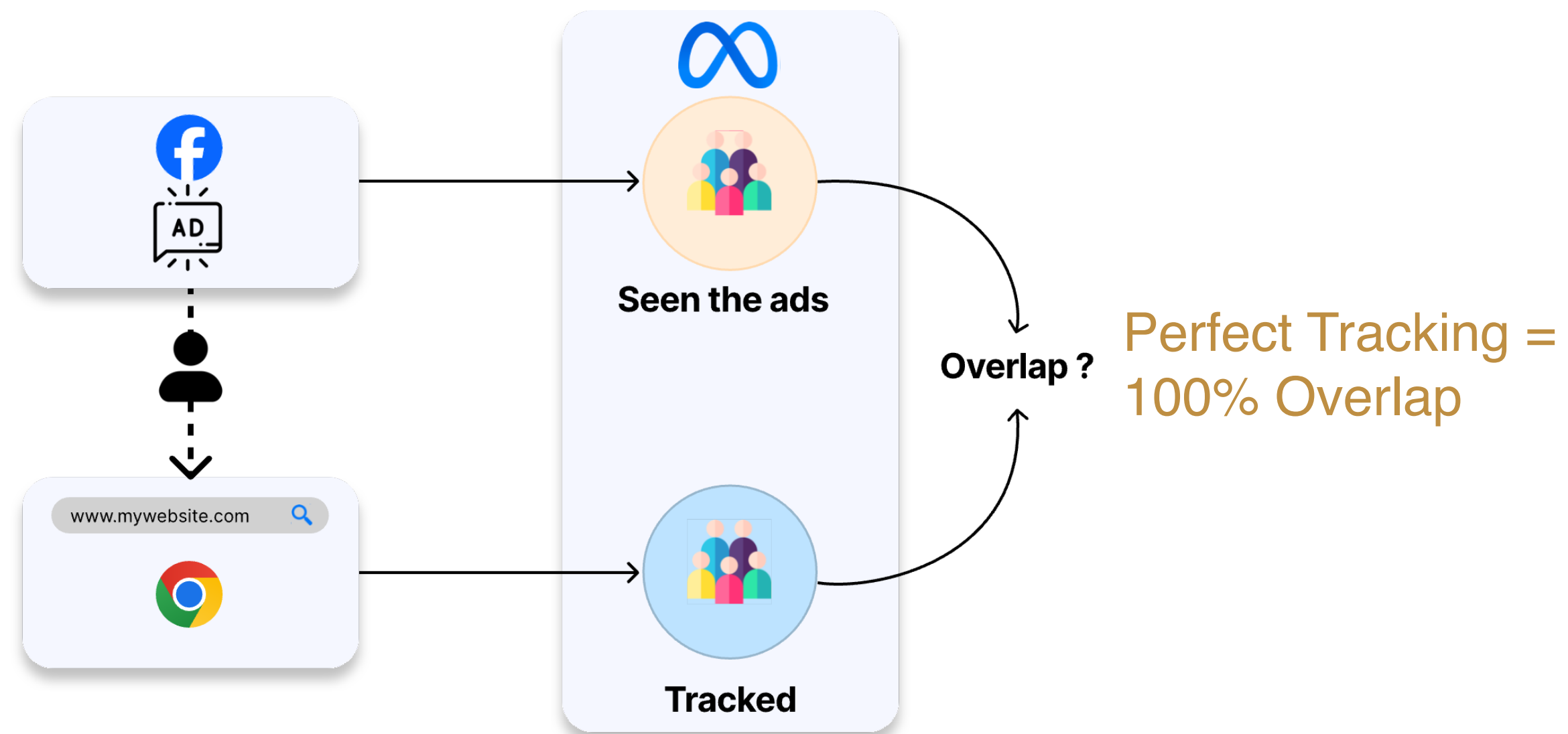
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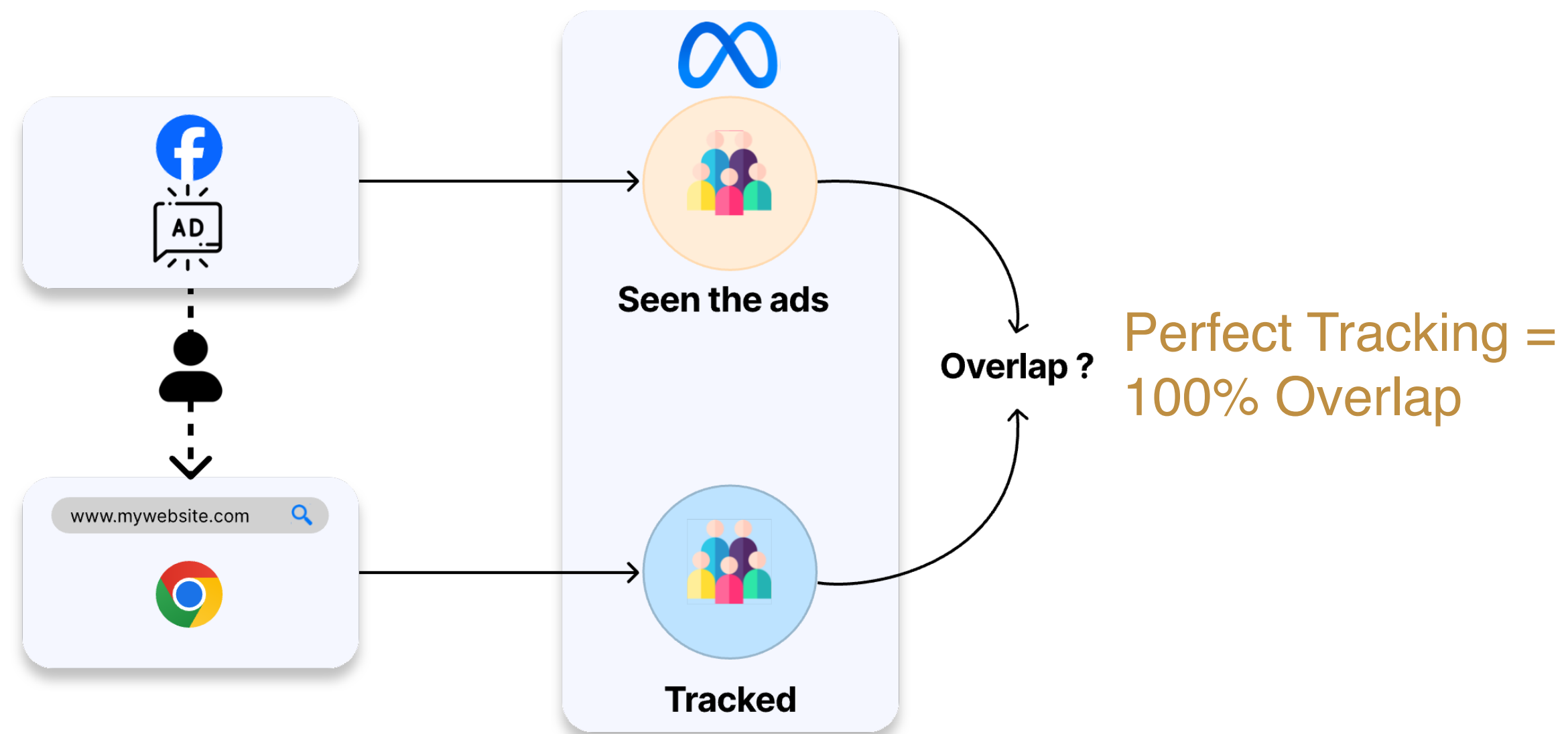
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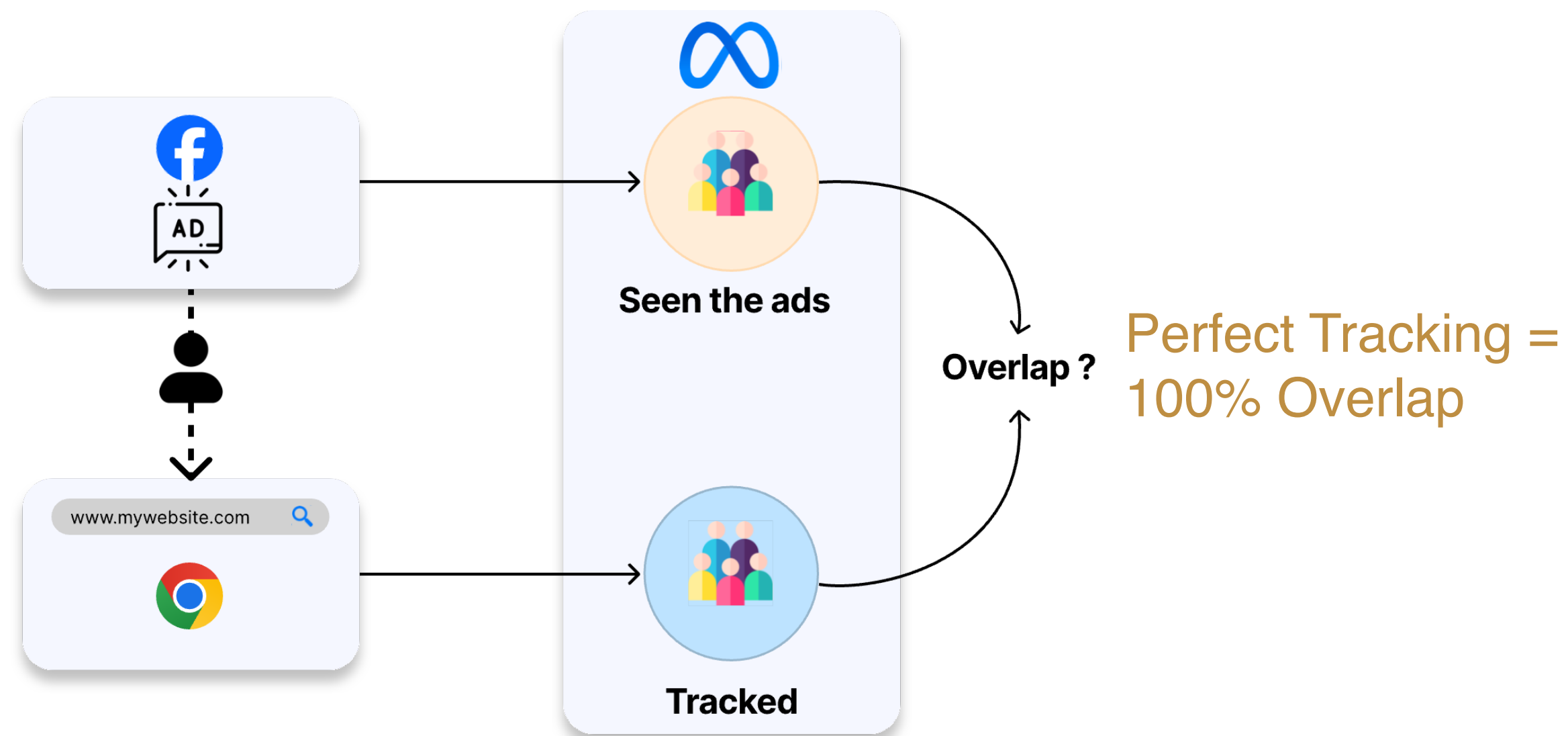


Implementation:

- 524k Ad views
- 11k Link Clicks
- 2791 Facebook users took part in our study

How accurate si the Conversions APIs?

Are the retargeted users actually our original website visitors?



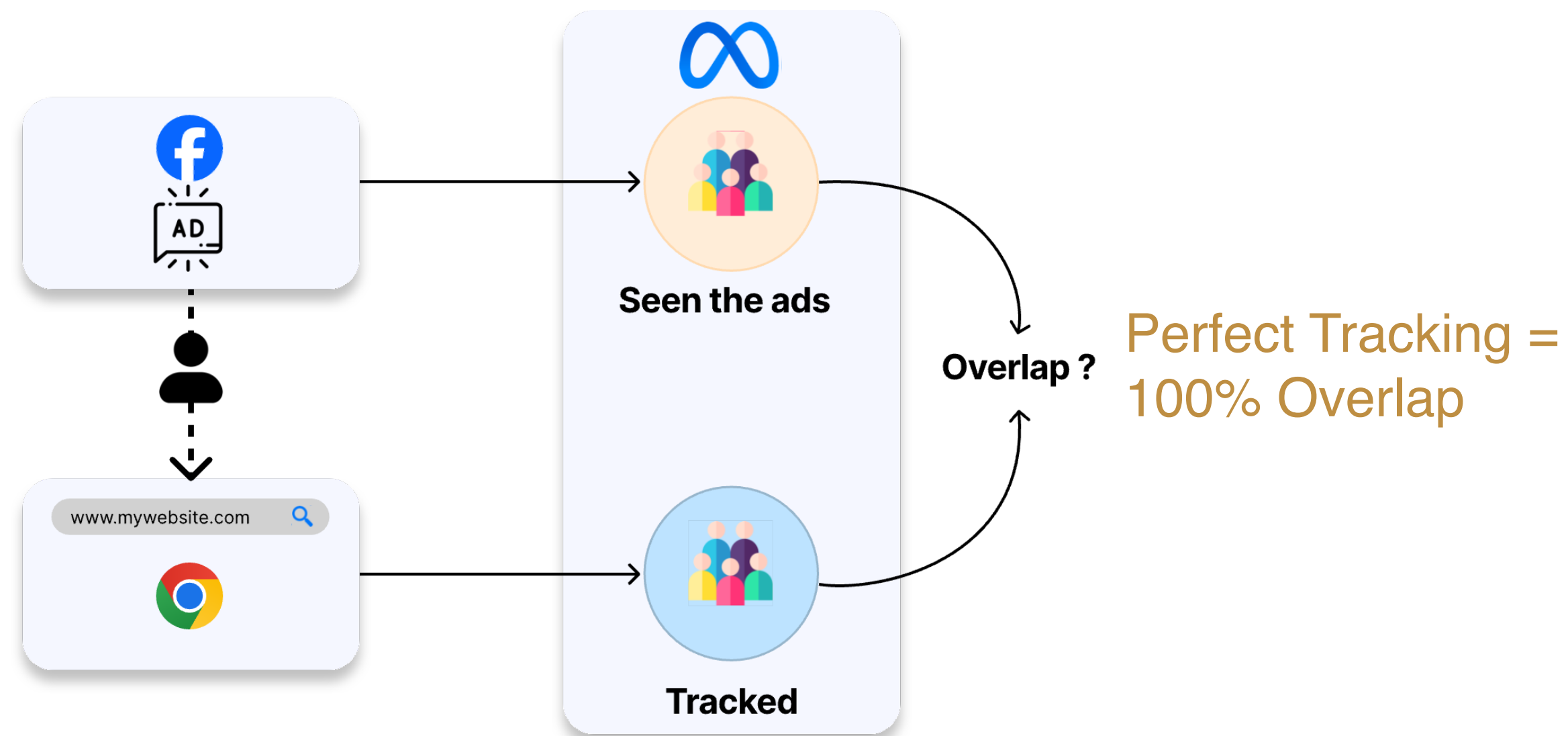
Implementation:

- 524k Ad views
- 11k Link Clicks
- 2791 Facebook users took part in our study

Pixel	100%	Accurate Profiles	0%	Mis-identified
CAPI	60%	Accurate Profiles	40%	Mis-identified

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Takeaways: Implementing the Conversions API with IP addresses, user agents and IP-based geolocation data produces false matches for **more than third of website visitors**

What safeguards to implement?

1. Transparency

- ▶ It can be good, but it is often not well-implemented

2. Restrictions

- ▶ We need data on the effectiveness, the operationalizability, and economic impact of restrictions

Other works on risks with online advertising

Political advertising

1. **(Behavior)** Analysis of malicious political advertisers [FAT*'19]
2. **(Audit)** Audit platforms' political ad detection algorithms [WWW'20]
3. **(Solution)** Can we reliably split political from non-political ads? [WWW'21]
4. **(Solution)** Detecting policy-related political ads [WWW'23]
5. **(Solution)** EU online advertising regulations

Supporting software: AdAnalyst, CheckMyNews, Elections2022, PolAds

Micro-targeting

1. **(Audit)** Does Facebook provide good ad explanations? [NDSS'18]
2. **(Attacks)** De-anonymize users through micro-targeting [S&P'18]
3. **(Behavior)** Characterization of Facebook advertisers [NDSS'19]
4. **(Audit)** Assess the quality of data supplied by data brokers [WWW'19]
5. **(Behavior)** Micro-targeting usage [CSCW'22]
6. **(Solution)** Collaborative ad transparency [S&P'23]
7. **(Audit)** Search engine tracking [IMC'23]
8. **(Audit)** Marketing to children [CCS'23]
9. **(Audit)** Server-side tracking [PETS'24]



Thank you!

<https://www.lix.polytechnique.fr/~goga/>

What safeguards to implement?

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- ▶ We need data on the effectiveness, the operationalizability, and economic impact of restrictions

3. Algorithms for data analysis

“On Detecting Policy-Related Political Ads: An Exploratory Analysis of Meta Ads in 2022 French Election.” V. Sosnovik, R. Kessi, M. Coavoux, O. Goga. *The Web Conference (WWW)*, April 2023.

What do ads talk about?

- Took inspiration from *political sciences*: the Comparative Agendas Project (CAP) and the Comparative Manifesto Project (CMP)
- **NLP method** to detect **policy-related political ads**: 0.79 precision, 0.59 recall

	Prec.	Rec.
International affairs	0.81	0.60
Energy	0.93	0.68
Government operations	0.65	0.43
Cultural policy	0.84	0.83
Social policy	0.76	0.19
Health	0.86	0.73
Human rights	0.67	0.47
Environment	0.81	0.80
Economy	0.75	0.49
micro avg	0.79	0.59
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- Analysis of **policy attention across demographic groups** during the French 2022 election
 - Women are **over-exposed** to ads about *Immigration, Social policy, and Health*
 - Men are **over-exposed** to ads about *Energy and the Economy*

What safeguards to implement?

1. Transparency

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2. Restrictions

- ▶ We need data on the effectiveness, the operationalizability, and economic impact of restrictions

3. Algorithms for data analysis

- ▶ First step, the goal is to detect ads that aim to manipulate, detect foreign interference, detect coordinated influence campaigns

Marketing to children

“Marketing to Children Through Online Targeted Advertising: Targeting Mechanisms and Legal Aspects”, Tinhinane Medjkoune, Oana Goga, Juliette Senechal. ACM Conference on Computer and Communications Security (CCS), 2023

What we know about children and advertising

- Children under 3 cannot distinguish advertising from television programs

[Wilcox et al. 2004. Report of the APA Task Force on Advertising and Children. Section: Psychological issues in the increasing commercialization of childhood (2004)]

- Children 8 to 12 understand the commercial intent, but cannot resist

[Petros et al. 1982. Preschoolers' Awareness of Television Advertising. Child Development (1982)]

- WHO & UNICEF: “Marketing to children is deliberate, strategic, innovative and well resourced, and exploits their developmental vulnerability.”

[Clark et al. 2020. A future for the world's children? A WHO–UNICEF–Lancet Commission. The Lancet (2020)]

Legislation on television

- Rules on the **content** that can be advertised, on the **duration** of ads, and on the **separation** between ads and the television program
 - No alcoholic beverages; tell children to ask their parents to buy something

Directive 2010/13/EU of March 10, 2010, on Audiovisual Media Services Directive

- No ads on television programs less than 30 min (E.U.); 10 min advertising/hour (U.S.)

Title 47 of the Code of Federal Regulations (CFR)

This work

Can children be **targeted** with ads on online streaming platforms?
and is this legal?



This work

Can children be **targeted** with ads on online streaming platforms?
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Incidentally seeing ads \neq targeted with ads



This work

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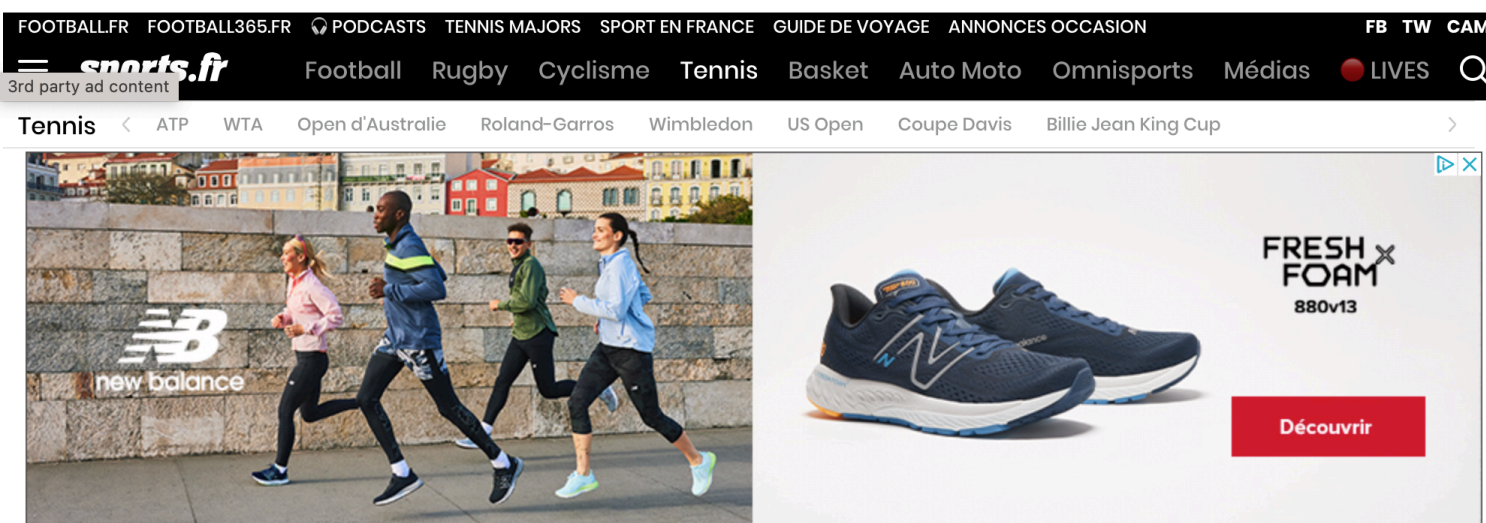
Incidentally seeing ads \neq targeted with ads

Can advertisers exploit features provided by online advertising platforms to reach an audience made mostly of children



Targeting mechanisms in online advertising

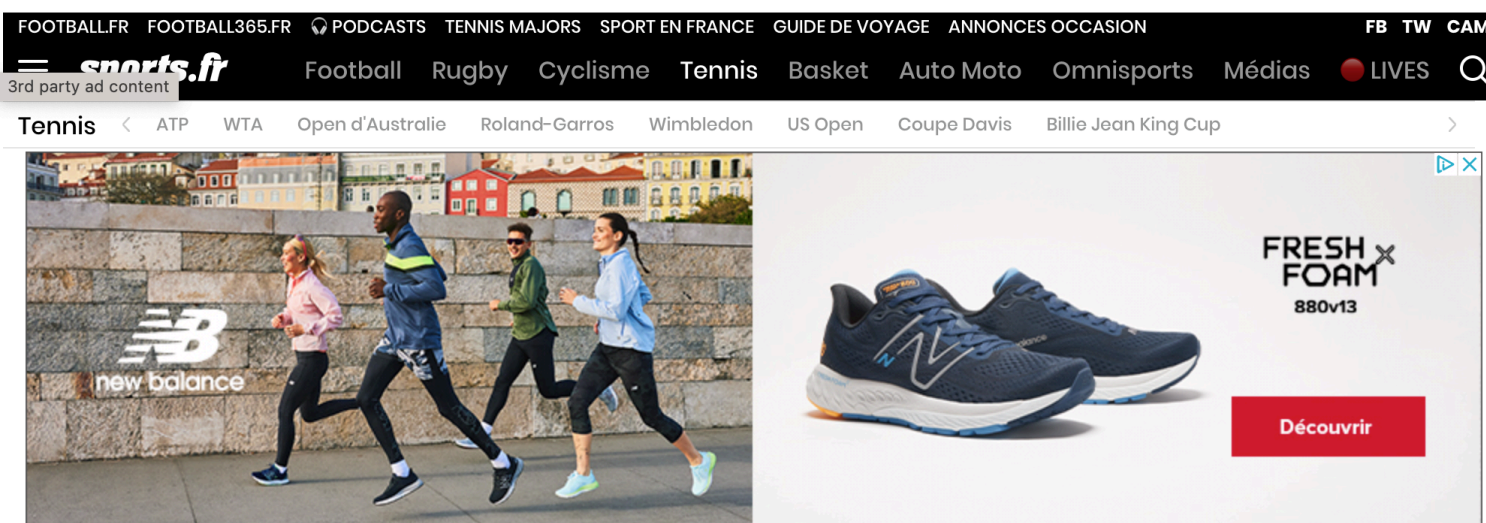
Contextual



Running shoes ad on sports website

Targeting mechanisms in online advertising

Contextual



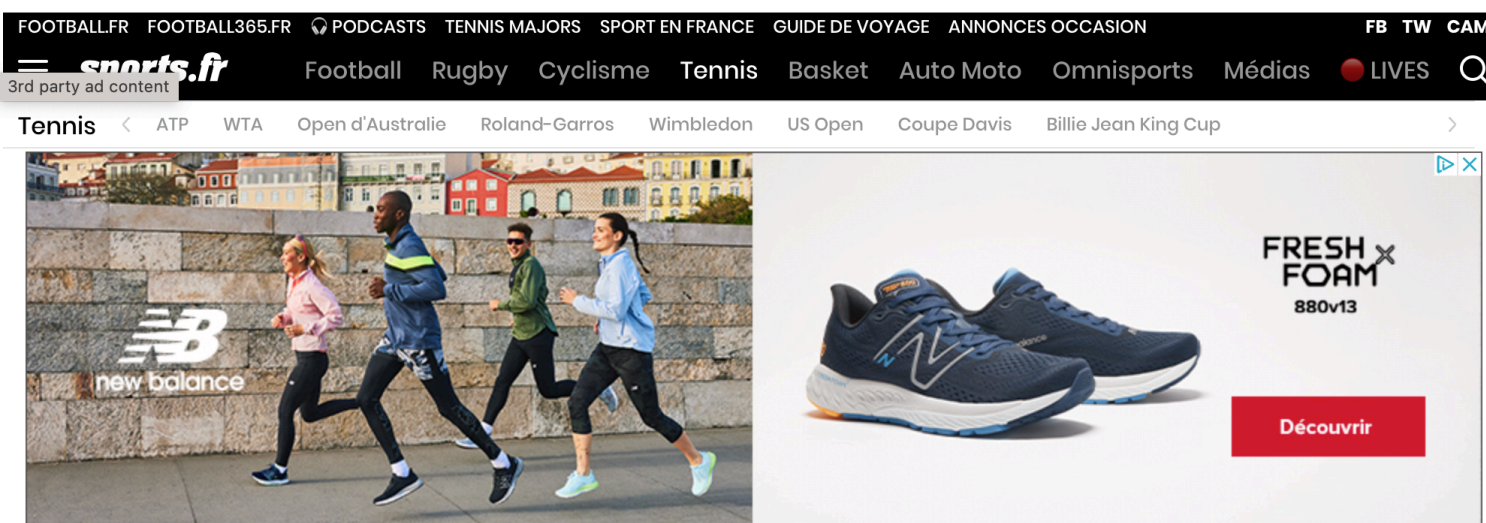
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User tracking **X**
User profiling **X**

Targeting mechanisms in online advertising

Contextual

Re-targeting



Running shoes ad on sports website

Le spécialiste américain des bureaux partagés, lancé en 2010 en fanfare et avec de grandes ambitions, n'a cessé d'engouffrer l'argent des investisseurs sans jamais approcher la rentabilité.

Par Arnaud Leparmentier (New York, correspondant)
Publié aujourd'hui à 03h30, modifié à 10h41 · Lecture 4 min.

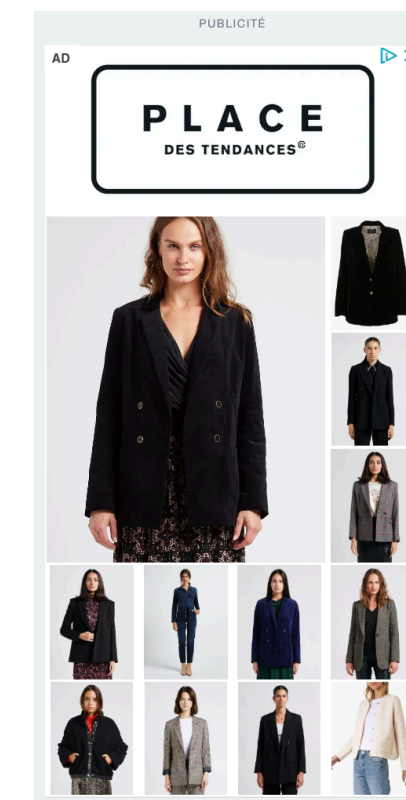
Ajouter à vos sélections

Article réservé aux abonnés





Devant l'entrée des bureaux de WeWork, à New York, le 7 novembre 2023. PETER MORGAN / AP

Il y a quelques années, un concept innovant avait été imaginé : travailler dans un espace de bureaux partagés, en ville, en apportant son ordinateur. C'était avant la pandémie de Covid-19, qui a généralisé l'usage du travail à domicile. L'entreprise américaine de location d'espaces de bureaux WeWork espérait alors « ubériser »



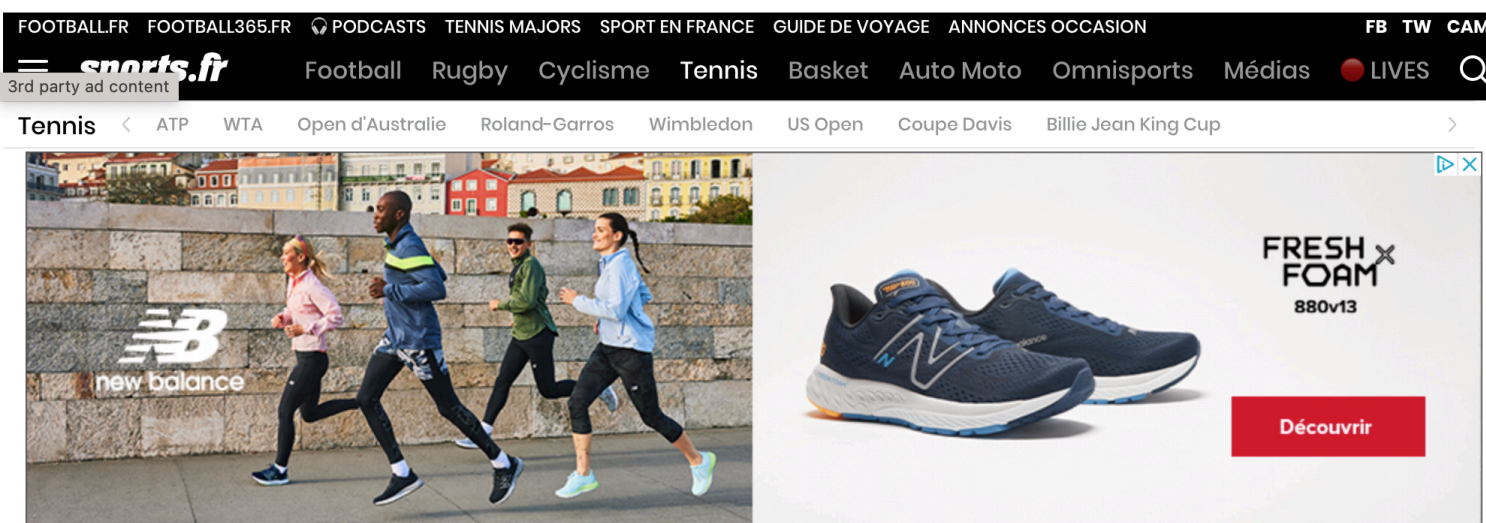
Blazer ad everywhere on the Internet

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User profiling 

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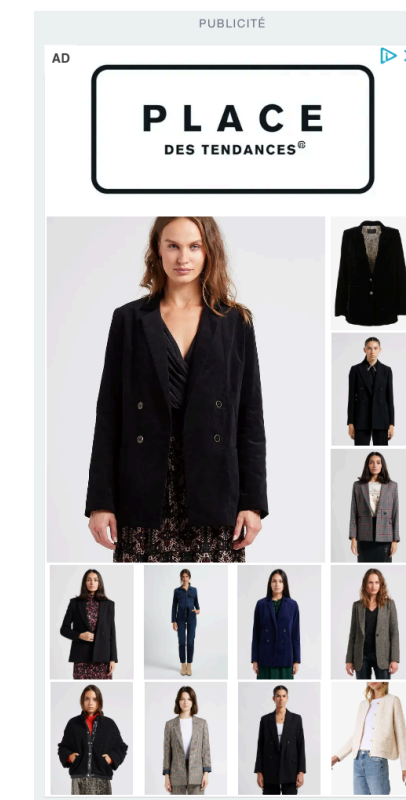
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Blazer ad everywhere on the Internet

User tracking ✗
User profiling ✗

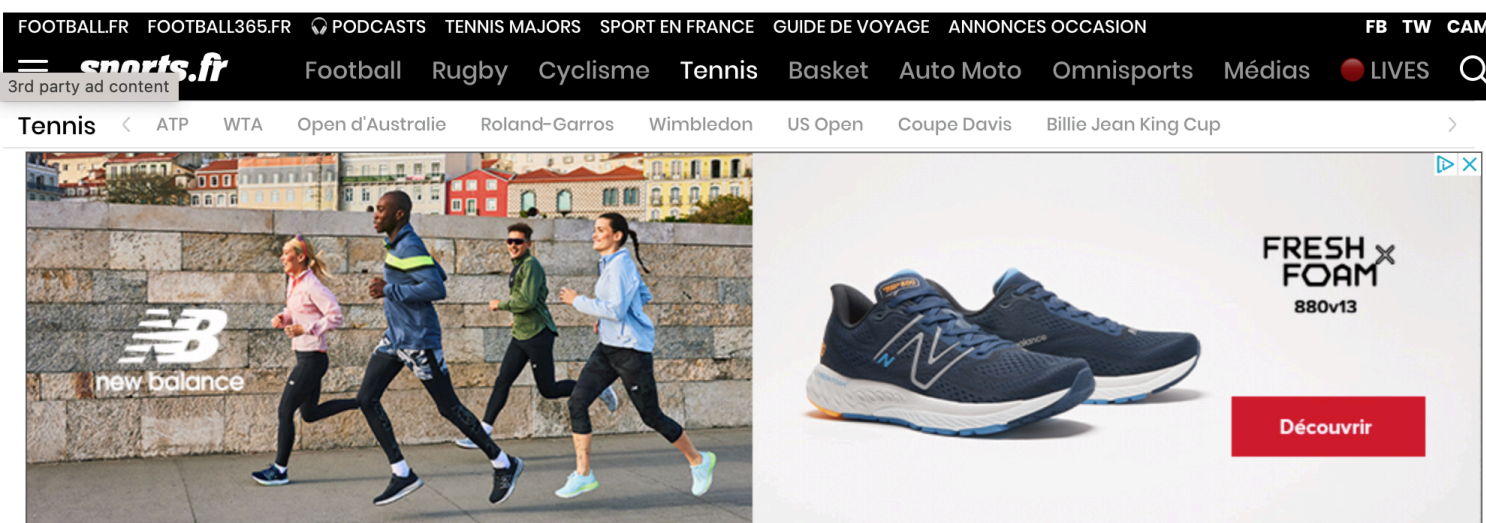
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Targeting mechanisms in online advertising

Contextual

Re-targeting

Behavioral/personalized/profiling



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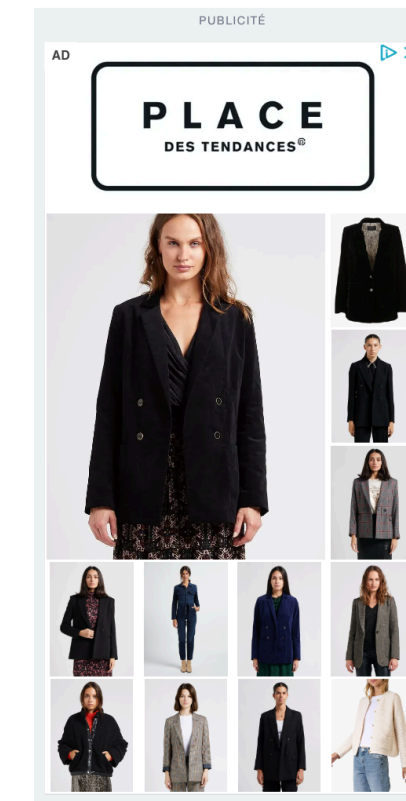
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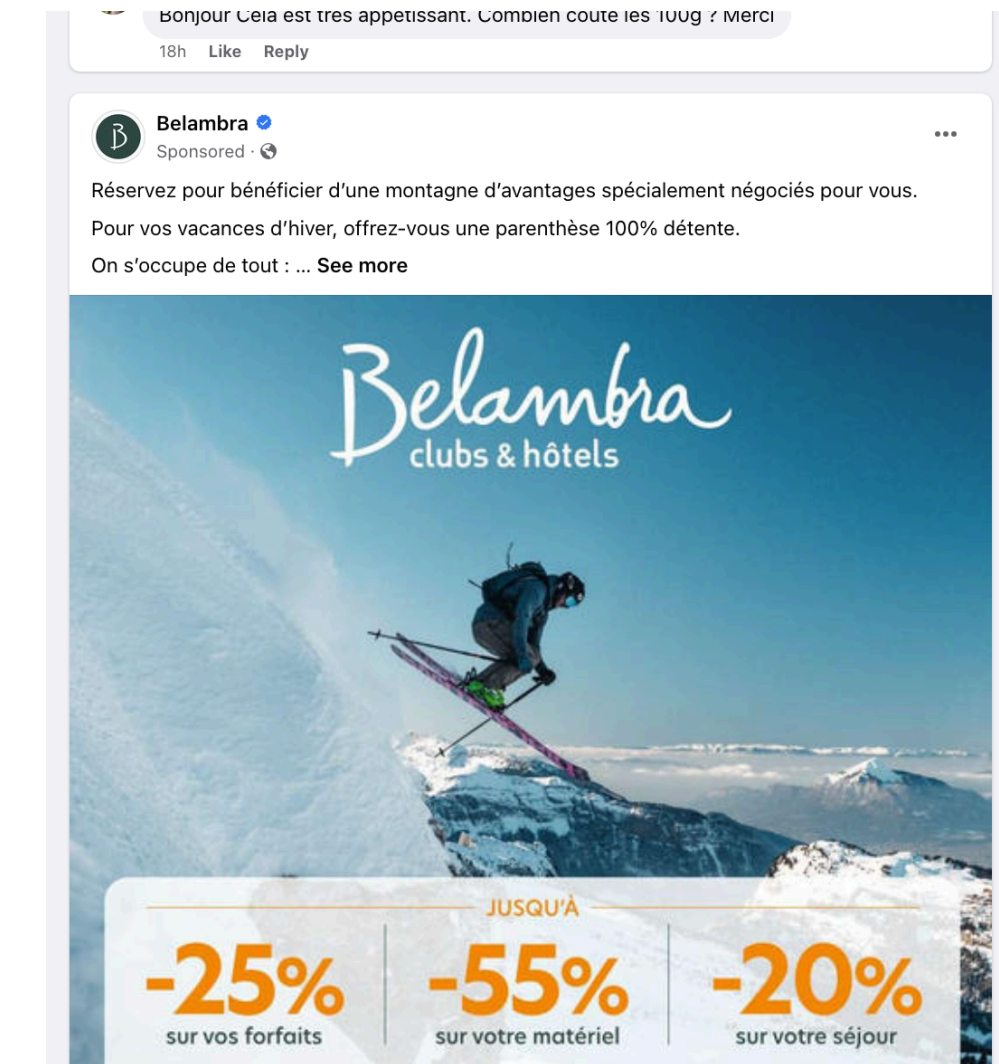


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Blazer ad everywhere on the Internet



Hotel ad because I am interested in a ski holiday

User tracking ✗
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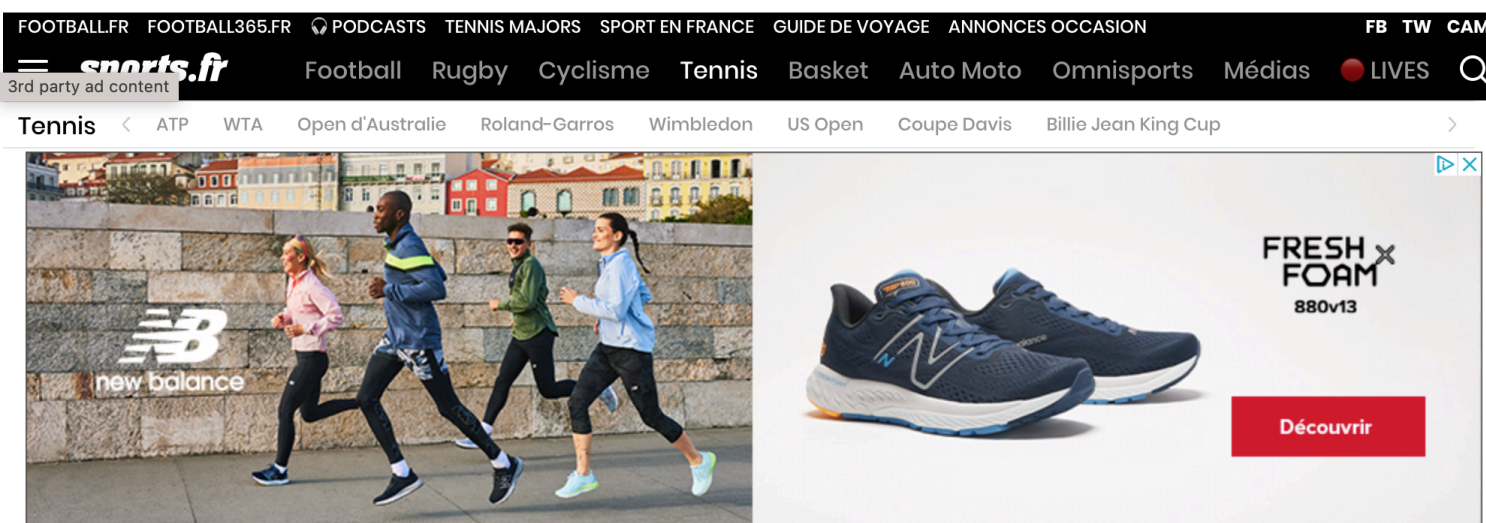
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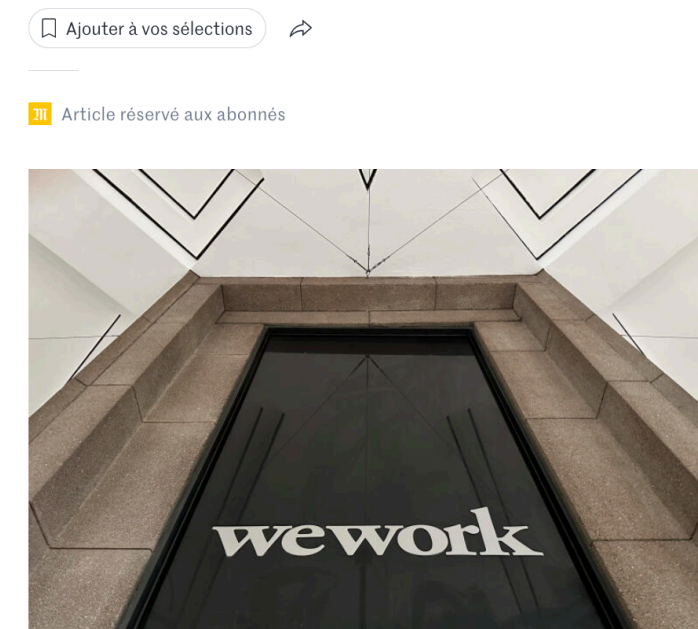


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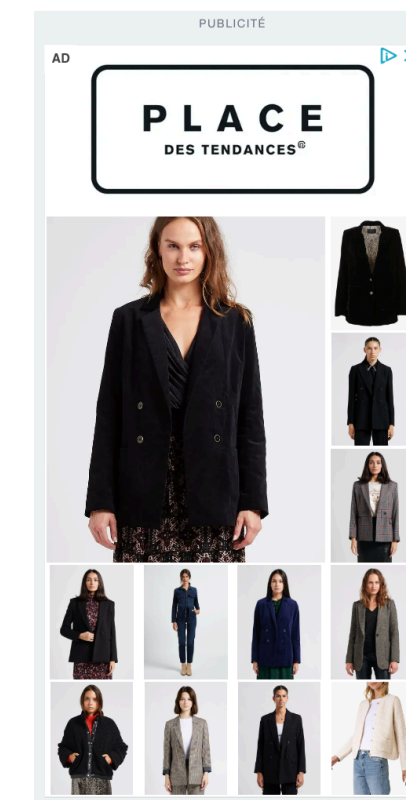
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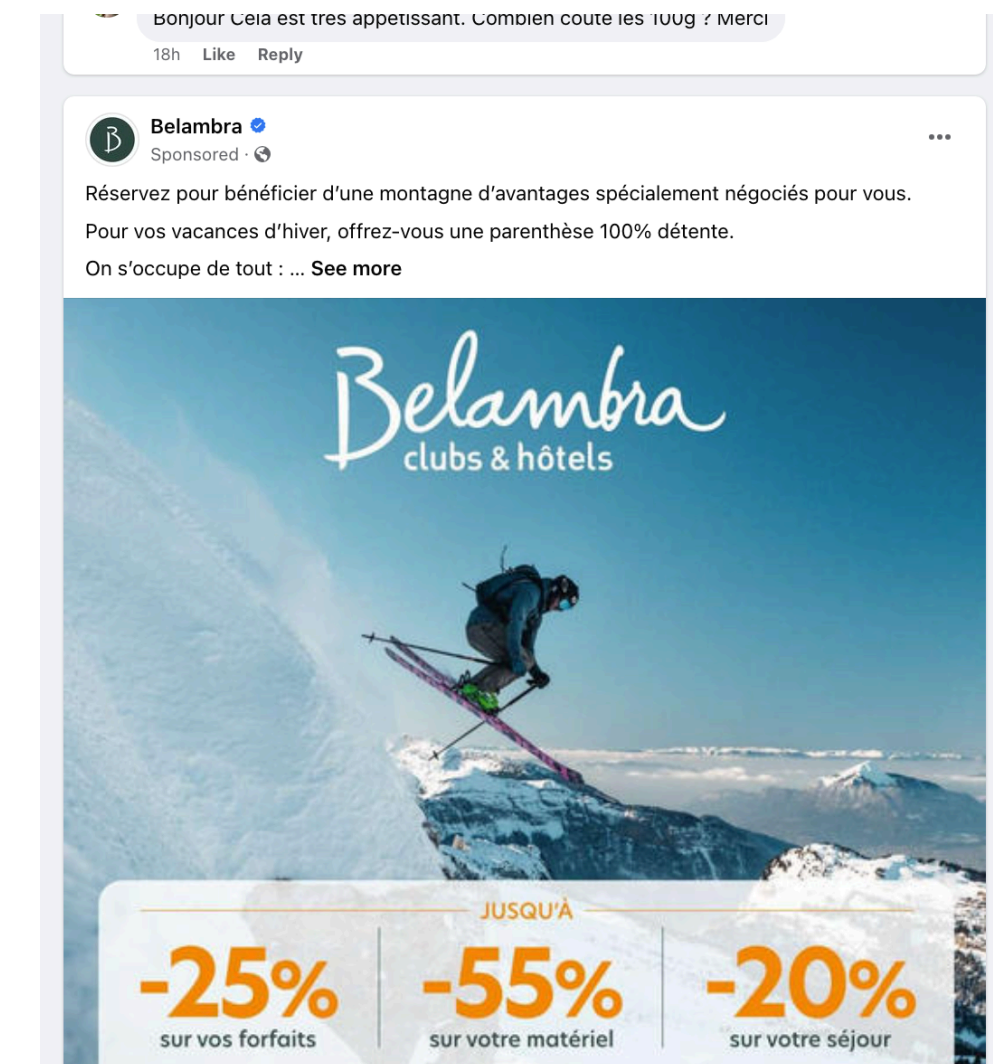
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Targeting children

Age-based

People: who you want to reach
Define your Audiences, Demographic, or both

Demographics

Select your demographic targeting ⓘ

Gender	Age	Parental status	Household income
<input checked="" type="checkbox"/> Female	<input checked="" type="checkbox"/> 18 - 24	<input checked="" type="checkbox"/> Not a parent	<input checked="" type="checkbox"/> Top 10%
<input type="checkbox"/> Male	<input checked="" type="checkbox"/> 25 - 34	<input checked="" type="checkbox"/> Parent	<input checked="" type="checkbox"/> 11 - 20%
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Not possible | Possible

Targeting children

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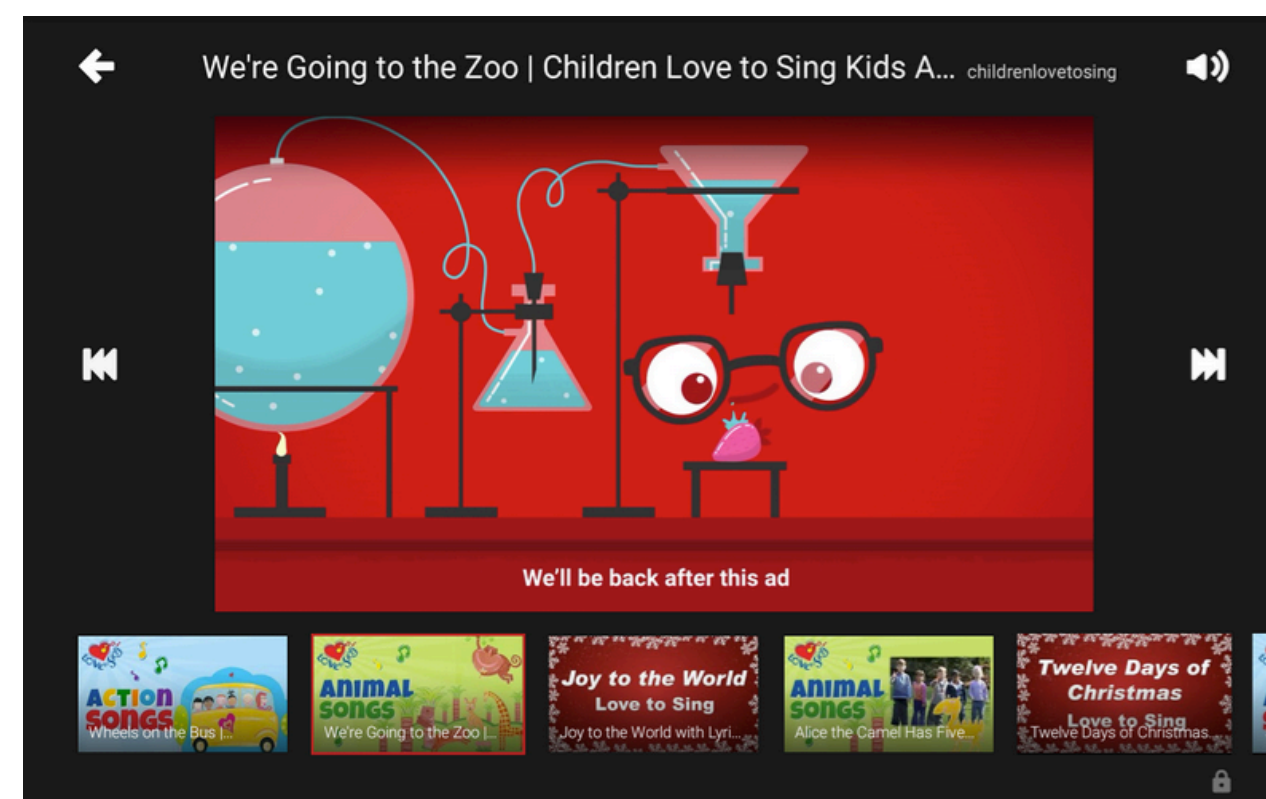
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YouTube Kids



Not possible | Possible

Targeting children

Age-based

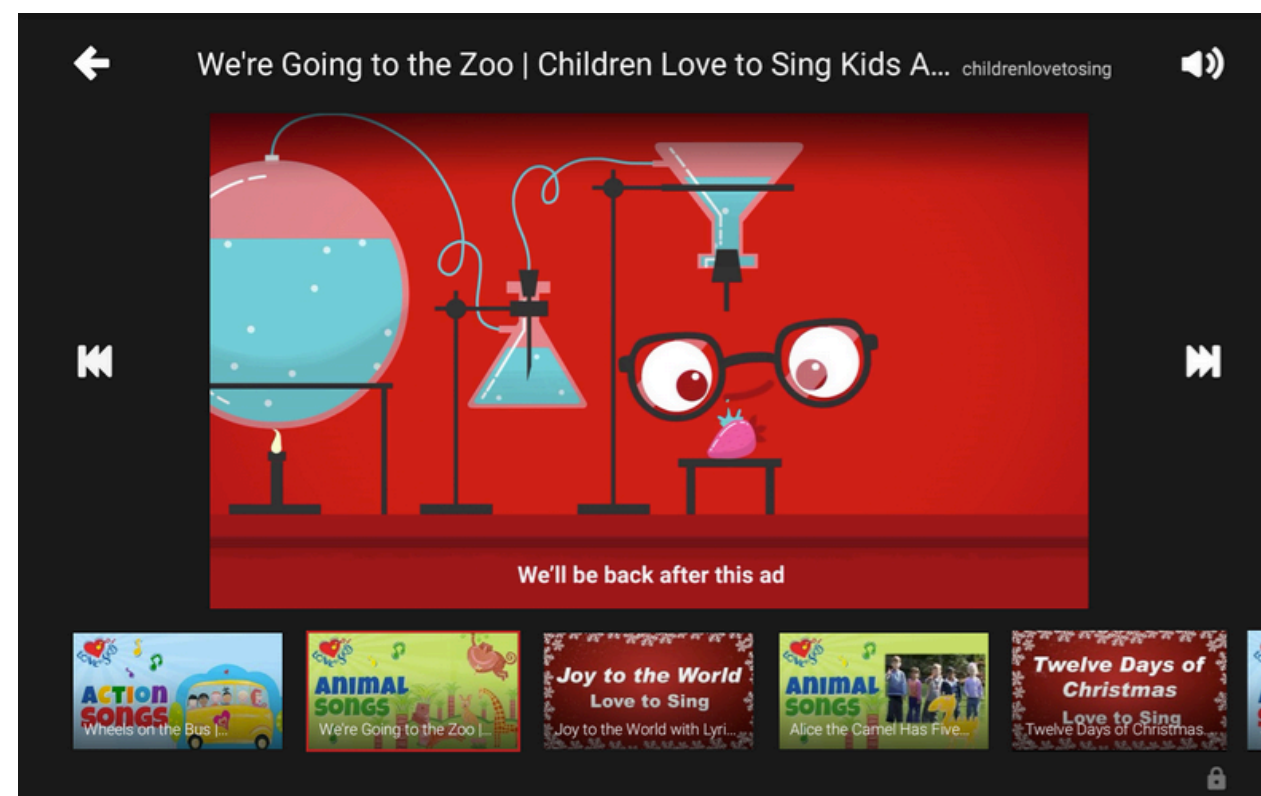
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YouTube Kids



Placement-based targeting

Placements

Select your placement targeting

Browse Enter

Swan and neo

YouTube channels

- Swan & Néo
2.19K videos • 6.13M subscribers
- Swan et Néo Shorts
124 videos • 220K subscribers
- Néo The One
431 videos • 2.27M subscribers

Note: Google's policy doesn't allow you to target placements that promote hatred, intolerance, or violence, and are subject to the Google Ads advertising policies. [Learn more](#)

YouTube allows
advertisers to place
ads on precise videos



To target children
advertisers can place
their ads on children-
focused videos

Not possible | Possible

Experimental validation

Curated children-focused videos: YTB Kids list (24 channels) + Children seed list (20 channels) + Adult list (20 channels)

Experimental validation

Curated children-focused videos: YTB Kids list (24 channels) + Children seed list (20 channels) + Adult list (20 channels)

Placement	Interests	Location	Impressions
3 Children YTB Kids List videos	None	U.S.	450 (450; 0)
4 Adult List videos + 7 Children YTB Kids List videos + 1 Children Seed List video	None	France	605 (43; 75)
10 Adult List videos + 10 Children YTB Kids List videos + 10 Children Seed List videos	None	France	6,124 (1,414; 2)

Experimental validation

Curated children-focused videos: YTB Kids list (24 channels) + Children seed list (20 channels) + Adult list (20 channels)

YouTube provides reach statistics on each precise video (YouTube Kids, seed)

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Targeting children is possible on YouTube

Legislation online

- The COPPA Act does not prohibit advertising to children but **restricts** online platforms' capabilities to **serve profile-based ads to children**
 - But data collection (e.g., tracking) is restricted from children under 13 years old without verifiable parental consent
- The DSA **forbids targeting children** with ads based on **profiling**

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Takeaway: **Targeting children through contextual advertising is legal**

- ▶ **Placement-based advertising is a form of contextual advertising (no tracking & no profiling)**

Combining placement & interest targeting

Placement	Interests	Location	Impressions
3 Adult List videos + 6 Children YTB Kids List videos + 1 Children Seed List video	News & Politics, Travel, Sports &	France	941 (121; 471)
20 Children YTB Kids List channels + 4 Children Seed List channels	Shoppers, Sports Game Fans	U.S.	10,854 (1,657; 9,203)
20 Children YTB Kids List videos	Shoppers, Food & Dining, Education, Media &	U.S.	4,650 (1,058; 0)
20 Children YTB Kids List videos	Shoppers, Food & Dining, Education, Media &	E.U.	2,372 (2,372; 0)

Ads were delivered to the placements and interests we asked

Combining placement & interest targeting

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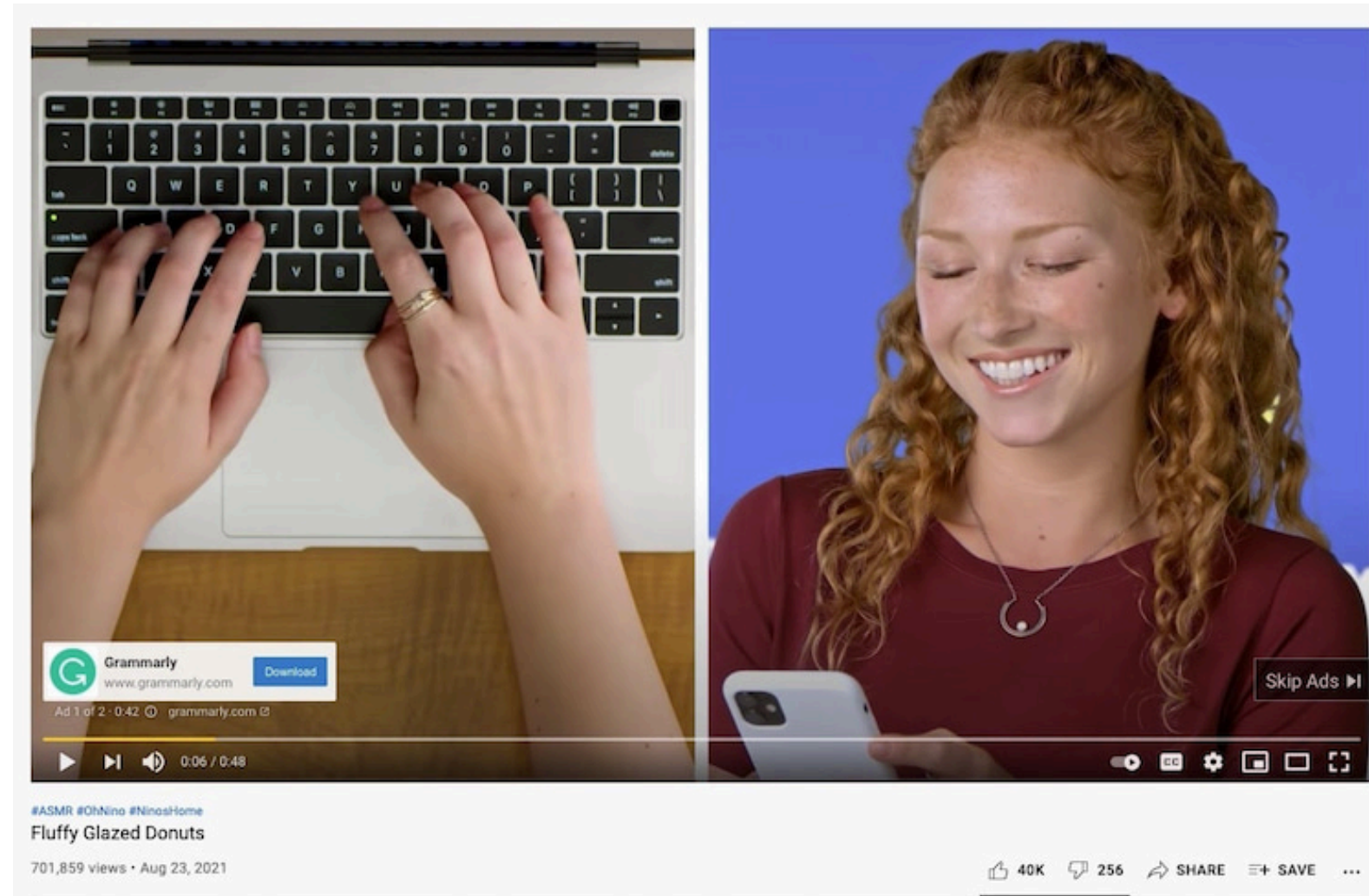
Google allows advertisers to perform targeting based on profiling when placing their ads on children-focused videos

Is placement-based targeting used in practice?



Artificial browsers profiles

Is placement-based targeting used in practice?



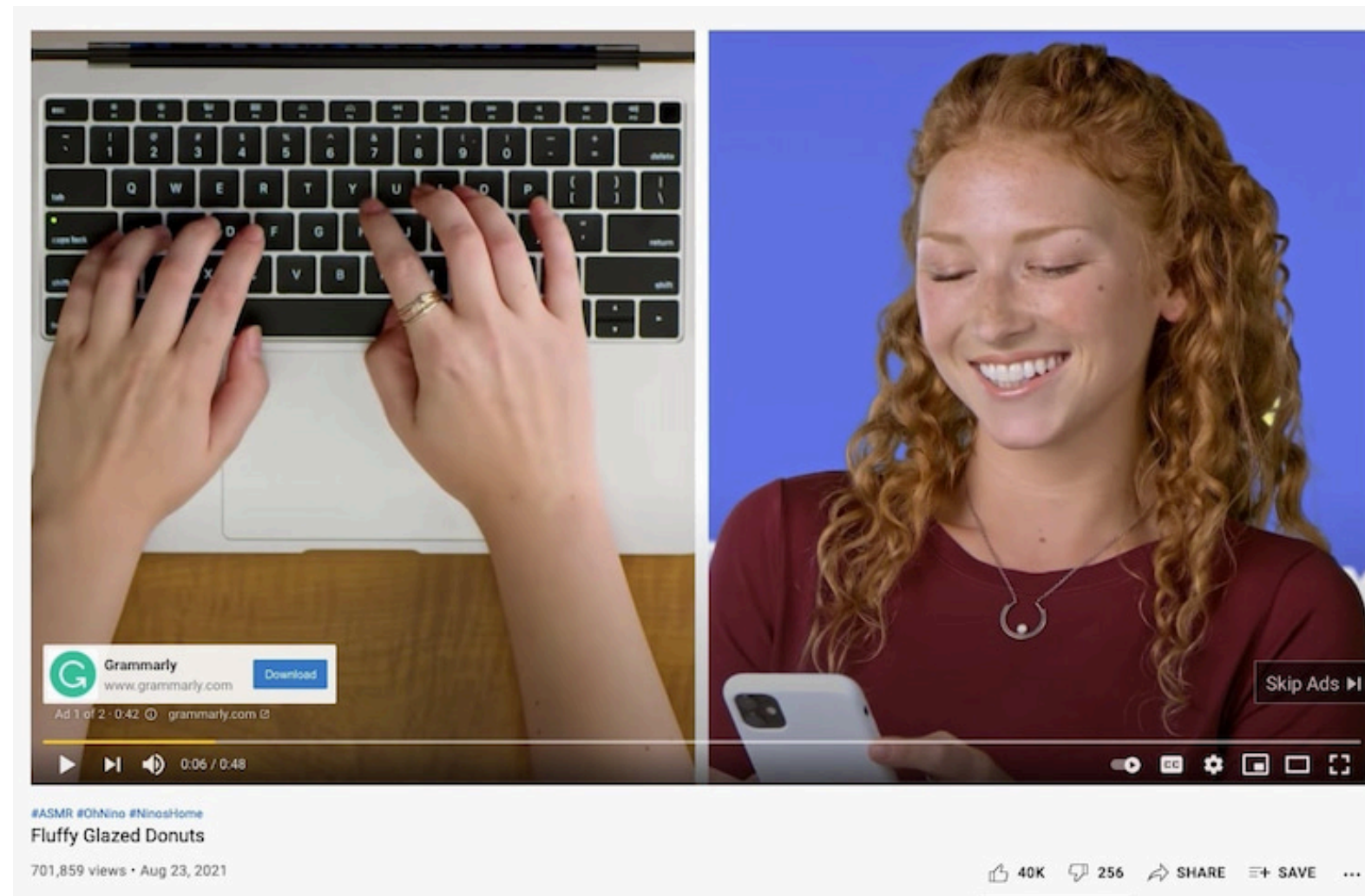
Artificial browsers profiles

Watched 620 videos & collected ads though a browser extension

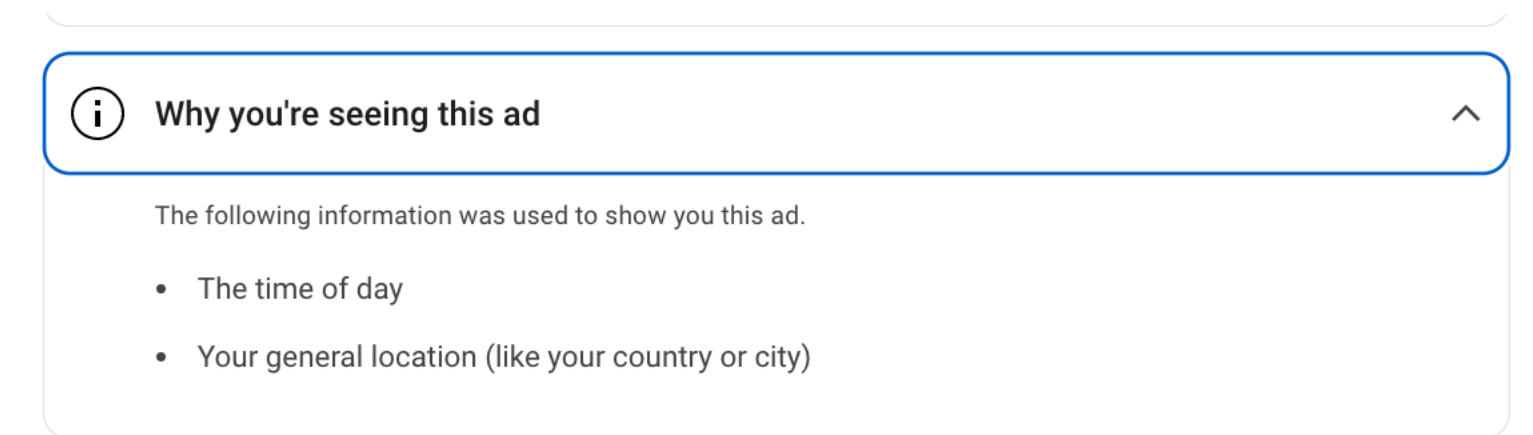
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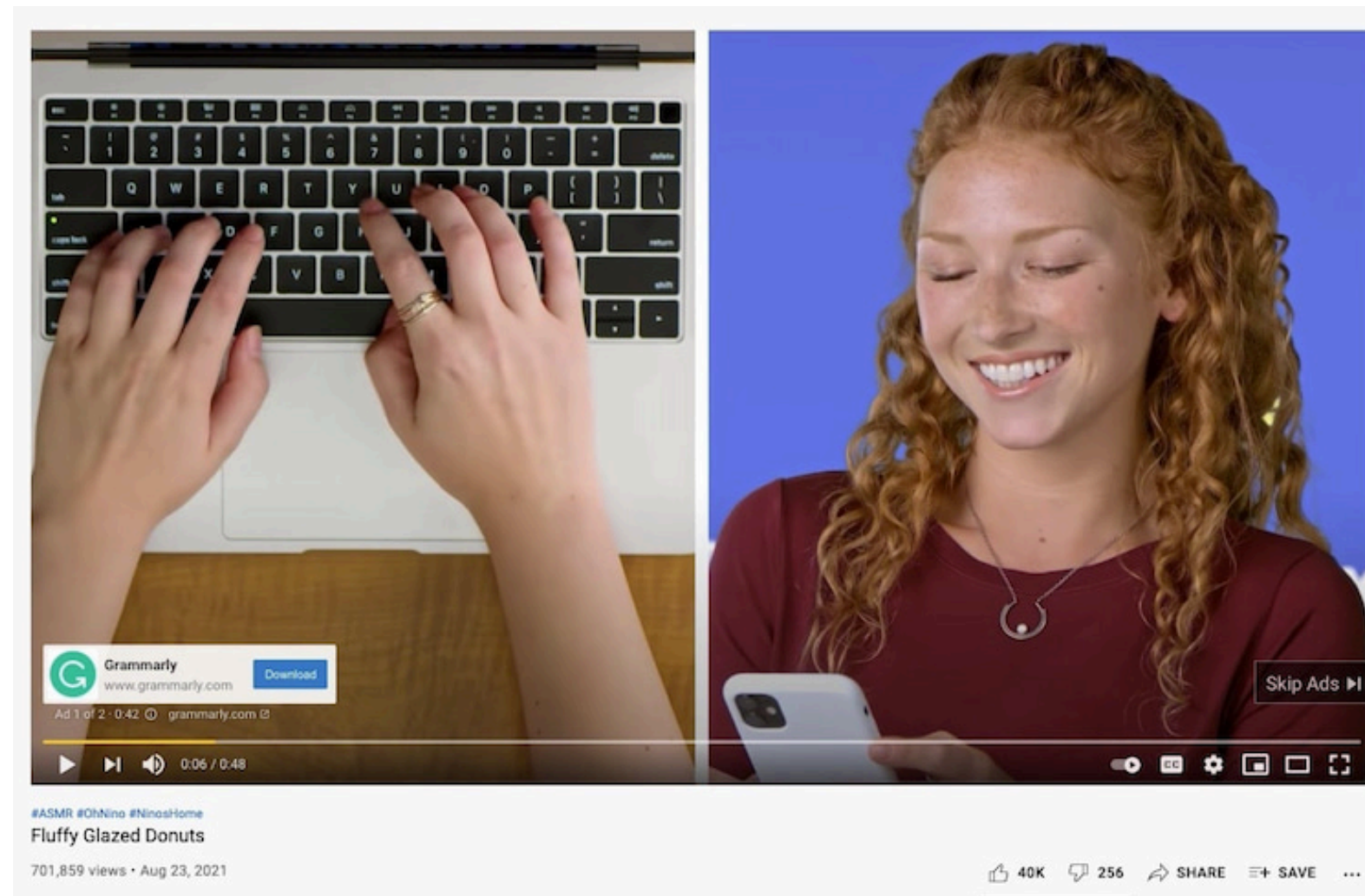
This is an ad. Ads are paid and are always labeled with "Ad" or "Sponsored". They're ranked based on a number of factors, including advertiser bid and ad quality. Some ads may contain reviews. Reviews aren't verified by Google, but Google checks for and removes fake content when it's identified. [Learn more](#)

Gathered "Why I am seeing this ad?" explanations

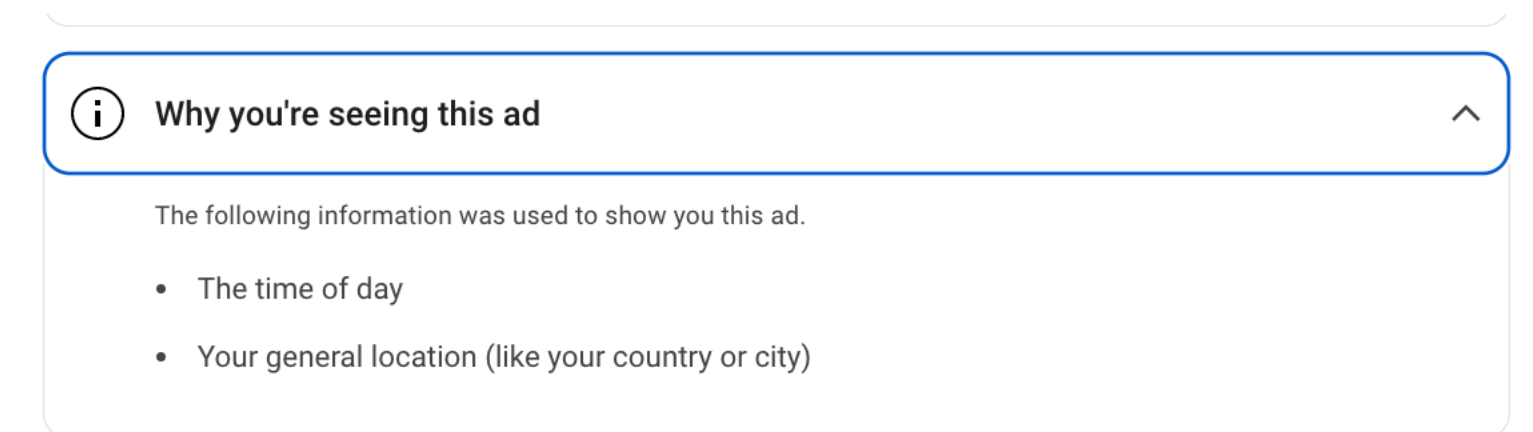
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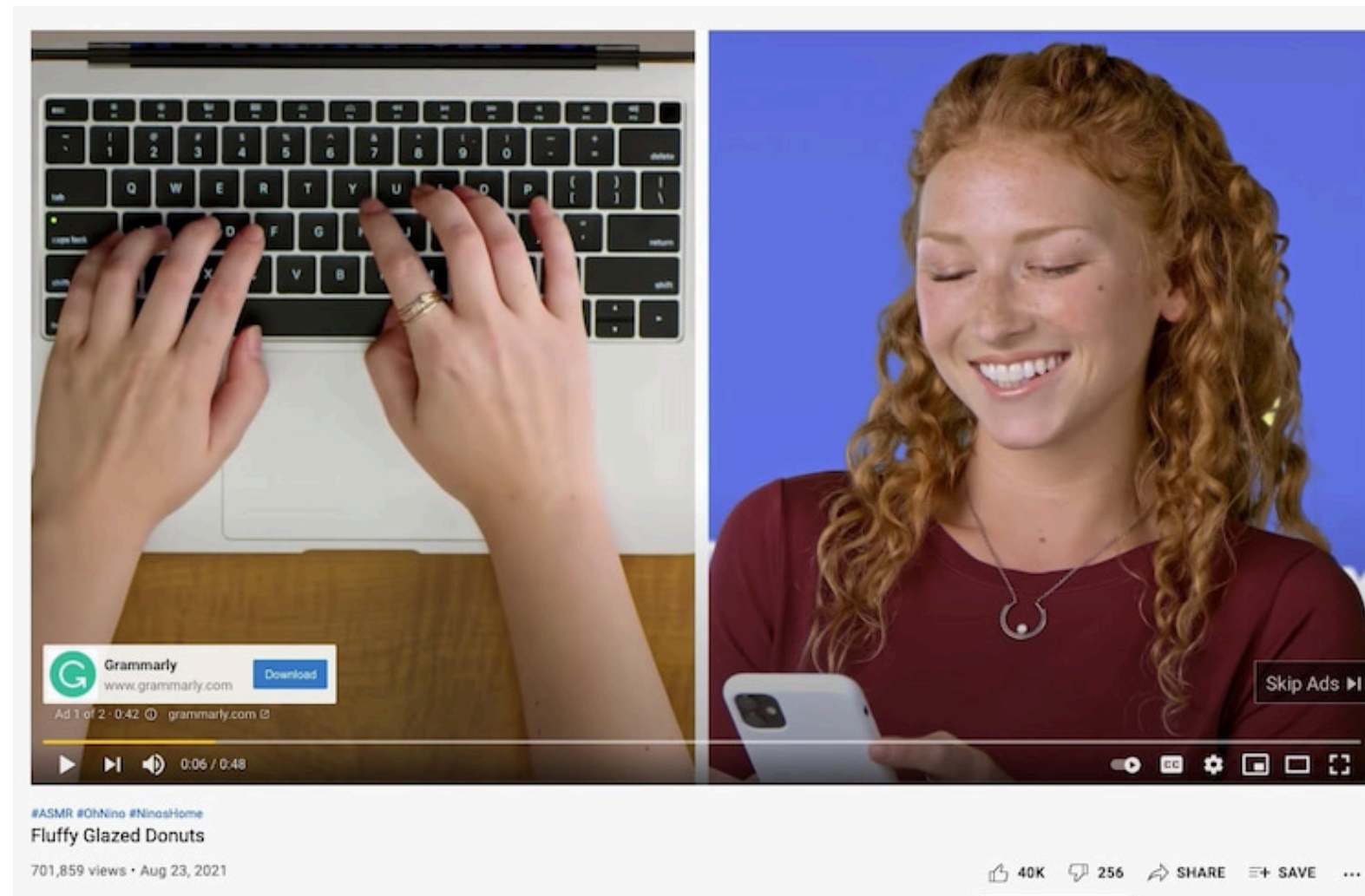
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Placement-based advertising = ad explanation: "The video you are watching."

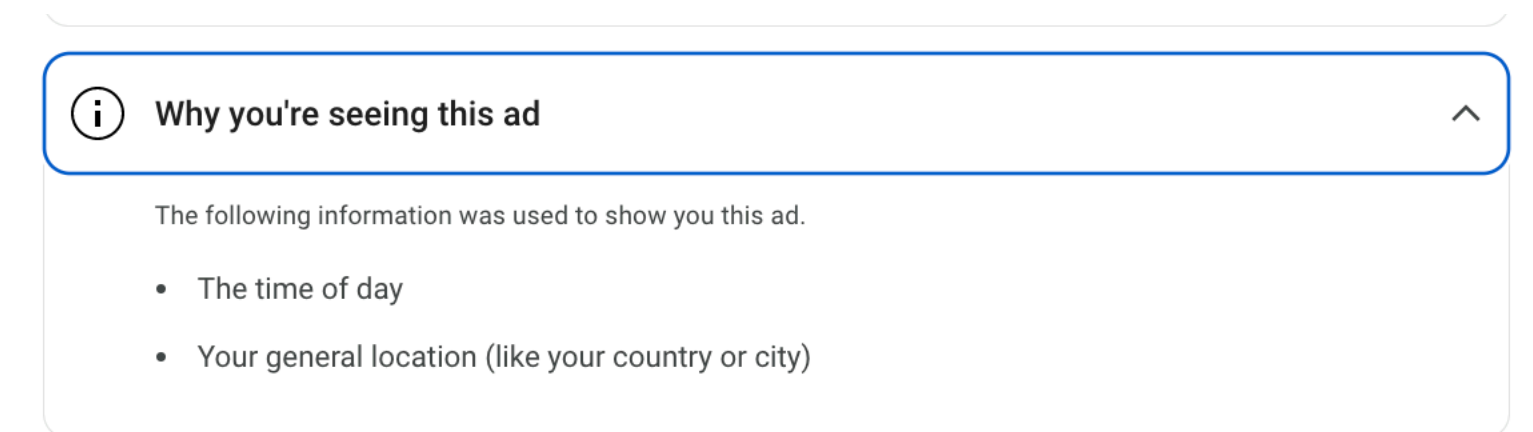
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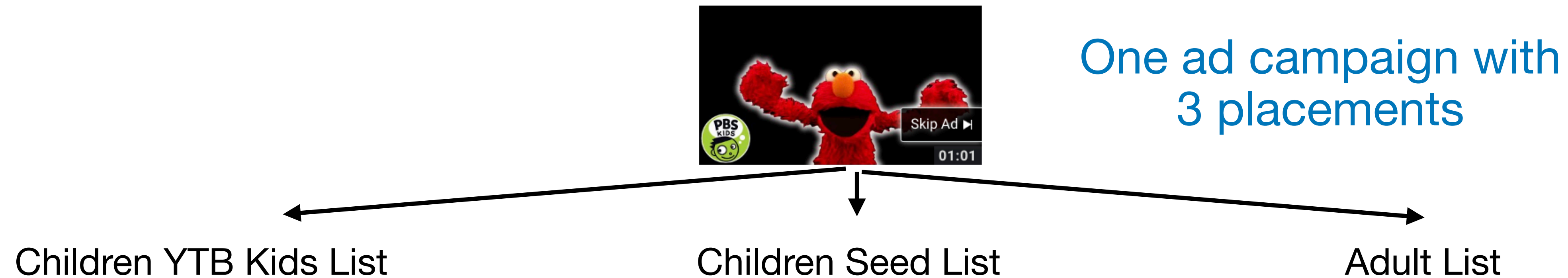
5% of ads on Children YTB Kids List; 14% of the ads on Children Seed List; and 23% of the ads on Adult List

Incidental finding: wrong explanations

- Observation: 38% of ads shown on YouTube Kids list and 0% of ads shown on the seed list had the ad explanation claiming the ad not to be personalized

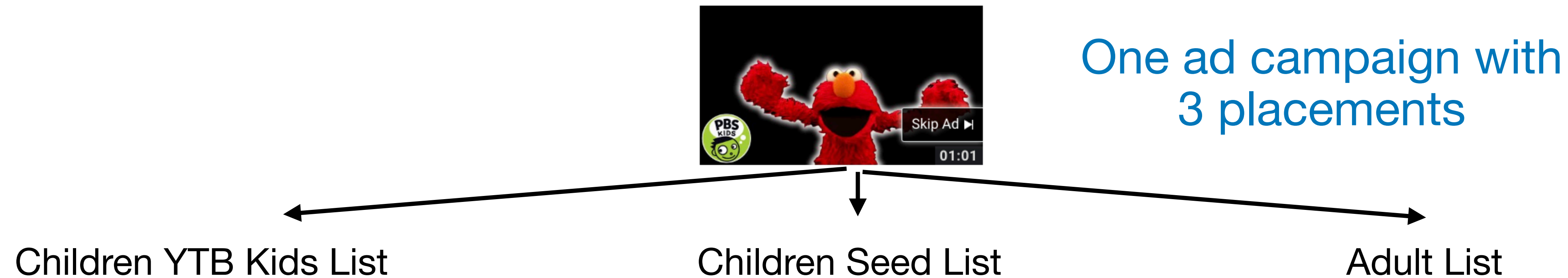
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“Ad personalizing is disabled for this account or content.

Therefore, this ad is not personalized based on your data. Its distribution depends on other factors (such as the time or your geographical position).”

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One ad campaign with
3 placements

Children YTB Kids List

Children Seed List

Adult List

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Therefore, this ad is not personalized based on your data. Its distribution depends on other factors (such as the time or your geographical position).”

“The video you are watching. Your activity while you were logged in to Google. Google’s estimate of your current approximate location. Google’s estimate (based on your past activity) of general geographies you may be interested in.”

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Adult List

“Ad personalizing is disabled for this account or content.

Therefore, this ad is not personalized based on your data. Its distribution depends on other factors (such as the time or your geographical position).”

“The video you are watching. Your activity while you were logged in to Google. Google’s estimate of your current approximate location. Google’s estimate (based on your past activity) of general geographies you may be interested in.”

Google changed the ad explanation depending on whether the video has a YouTube Kids redirection or not

Takeaways

- Targeting children through contextual/placement-based advertising is legal
 - ▶ Should this be allowed?
- Placement-based advertising might be more problematic than profiling-based advertising
 - ▶ Placement-based advertising can also be used in other contexts (health, misinformation)
- Ads placed under a single content are hard to verify
 - ▶ We need ad libraries that show all the ads placed on a particular video, especially made for children