

Meetup - May 24, 2022

OVERVIEW,
FEATURES &
INTEGRATIONS

Google Analytics 4



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- 6+ years in Digital Analytics, Tech SEO & Digital Marketing
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



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I. What is Google Analytics 4?

- Scalable, **cross-platform** analytics based on a new tracking model: **event tracking**
- New reporting capabilities, including a powerful real-time reporting
- Automatically collected and recommended events
- Machine Learning (**ML**) functions 
- Ad-hoc Analysis Workspace 
- No volume limits for data collection
- Increased sampling thresholds (no sampling in default reports)



Before We Start

GA4 is not Universal Analytics - it's **completely** different

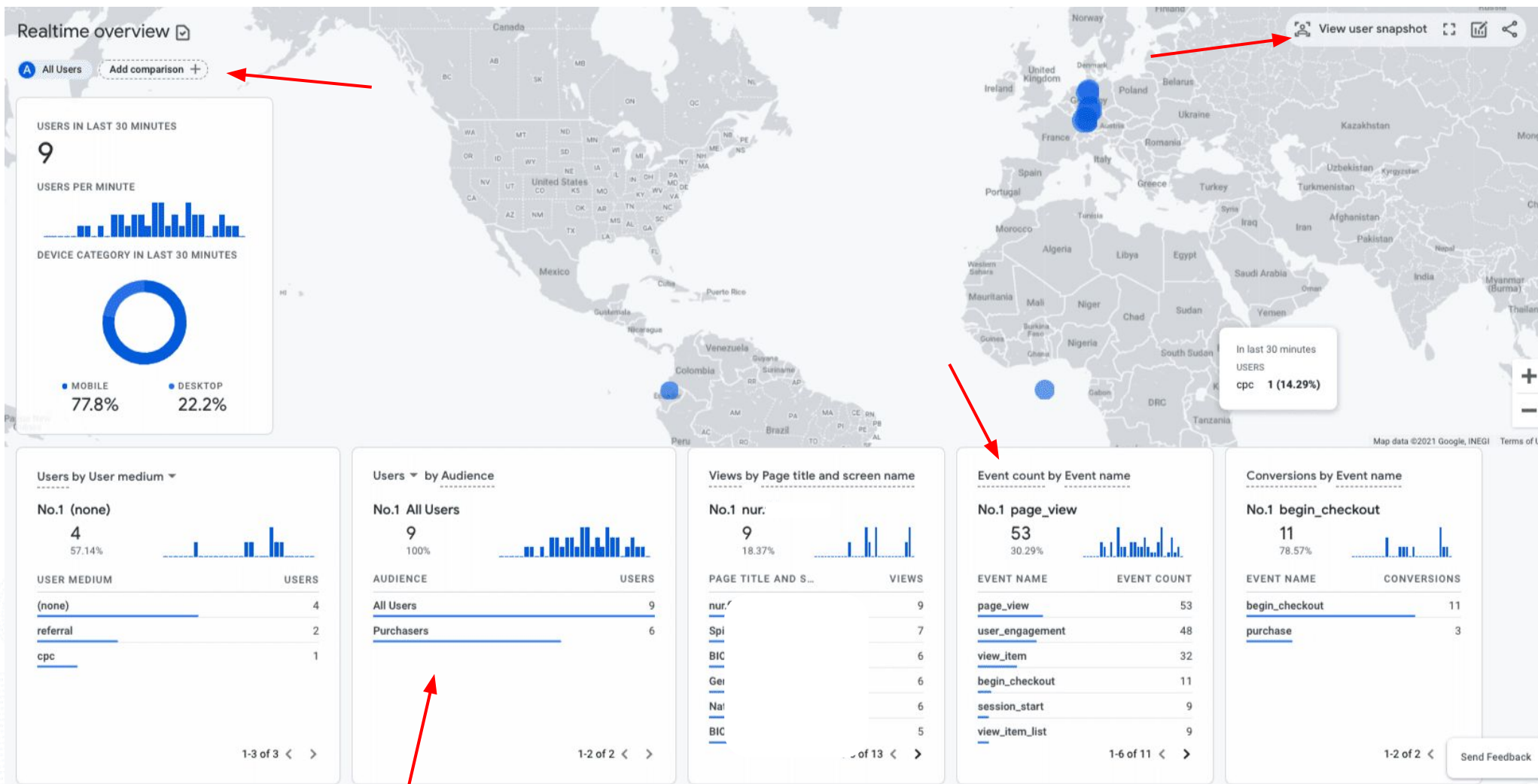
Hit Type in Universal Analytics property	Measurement in Google Analytics 4 property
Page View	Event
Event	Event
Social	Event
Transaction/e-commerce	Event
User timing	Event
Exception	Event
App/screen view	Event

Scope in your Universal Analytics property	maps to the following in your Google Analytics 4 property
Hit-scoped	Event scoped custom dimension
User-scoped	User scoped custom dimension
Session-scoped	No Google Analytics 4 property equivalent
Product-scoped	E-commerce parameters

- Events only 🕶️
 - Only User & Event Scope custom dimensions
- * note that GA4 is still under constant construction

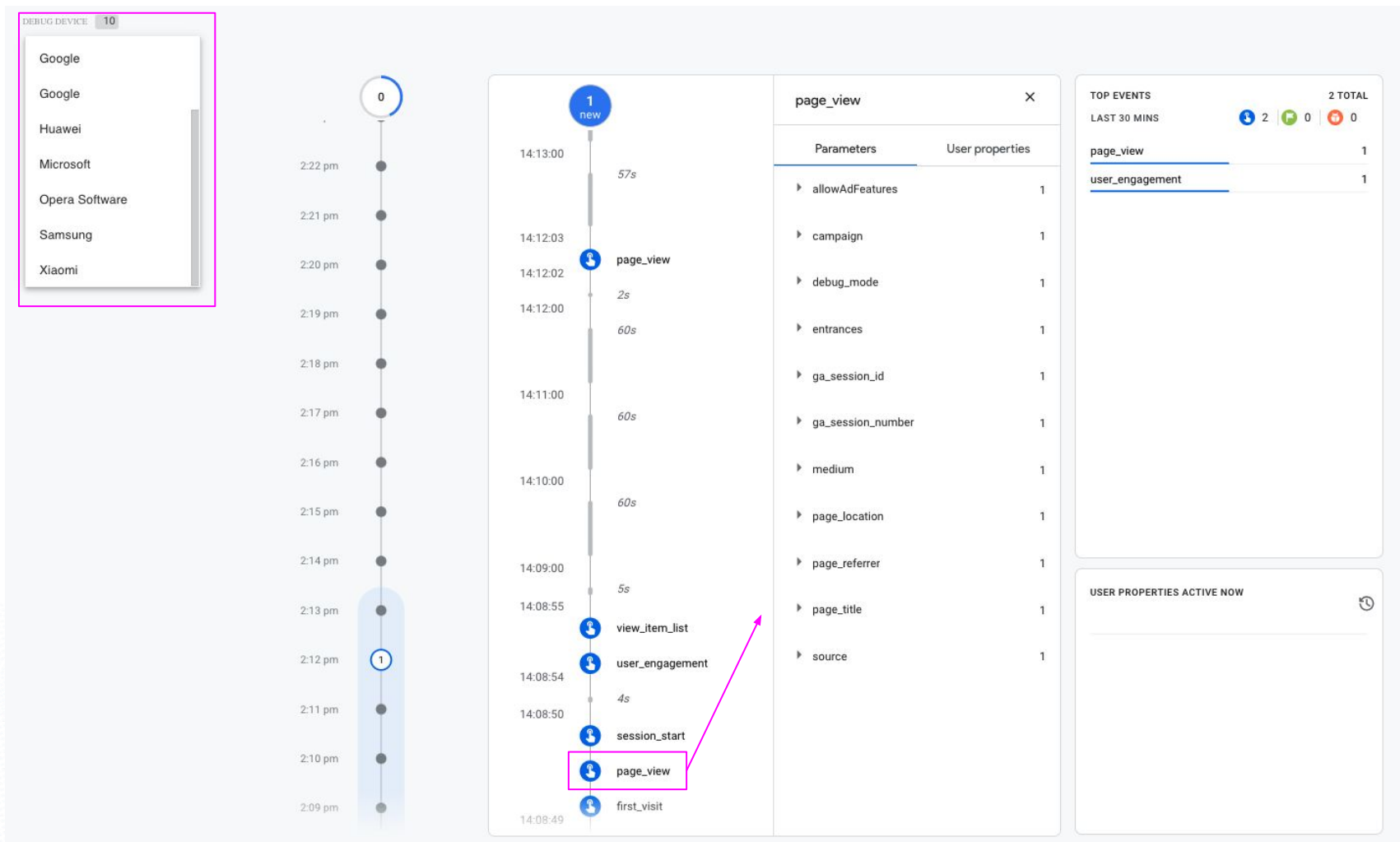
II. GA4 Features

Real-time reporting 2.0



- Apply **Audience Filters**
- Apply **Segments** in Real-Time
- View User **Snapshots & Event Streams** generated on the fly

Debug View for Event Streams



DEBUG DEVICE 10

- Google
- Google
- Huawei
- Microsoft
- Opera Software
- Samsung
- Xiaomi

Timeline (Left):

- 2:22 pm
- 2:21 pm
- 2:20 pm
- 2:19 pm
- 2:18 pm
- 2:17 pm
- 2:16 pm
- 2:15 pm
- 2:14 pm
- 2:13 pm
- 2:12 pm (1)
- 2:11 pm
- 2:10 pm
- 2:09 pm

Event Stream (Center):

- 14:13:00 (1 new) 57s
- 14:12:03
- 14:12:02 (1) page_view 2s
- 14:12:00 60s
- 14:11:00 60s
- 14:10:00 60s
- 14:09:00 5s
- 14:08:55 (1) view_item_list
- 14:08:54 (1) user_engagement
- 14:08:50 4s
- 14:08:50 (1) session_start
- 14:08:50 (1) page_view
- 14:08:49 (1) first_visit

Event Details (Right):

page_view

Parameters	User properties
allowAdFeatures	1
campaign	1
debug_mode	1
entrances	1
ga_session_id	1
ga_session_number	1
medium	1
page_location	1
page_referrer	1
page_title	1
source	1

TOP EVENTS LAST 30 MINS 2 TOTAL

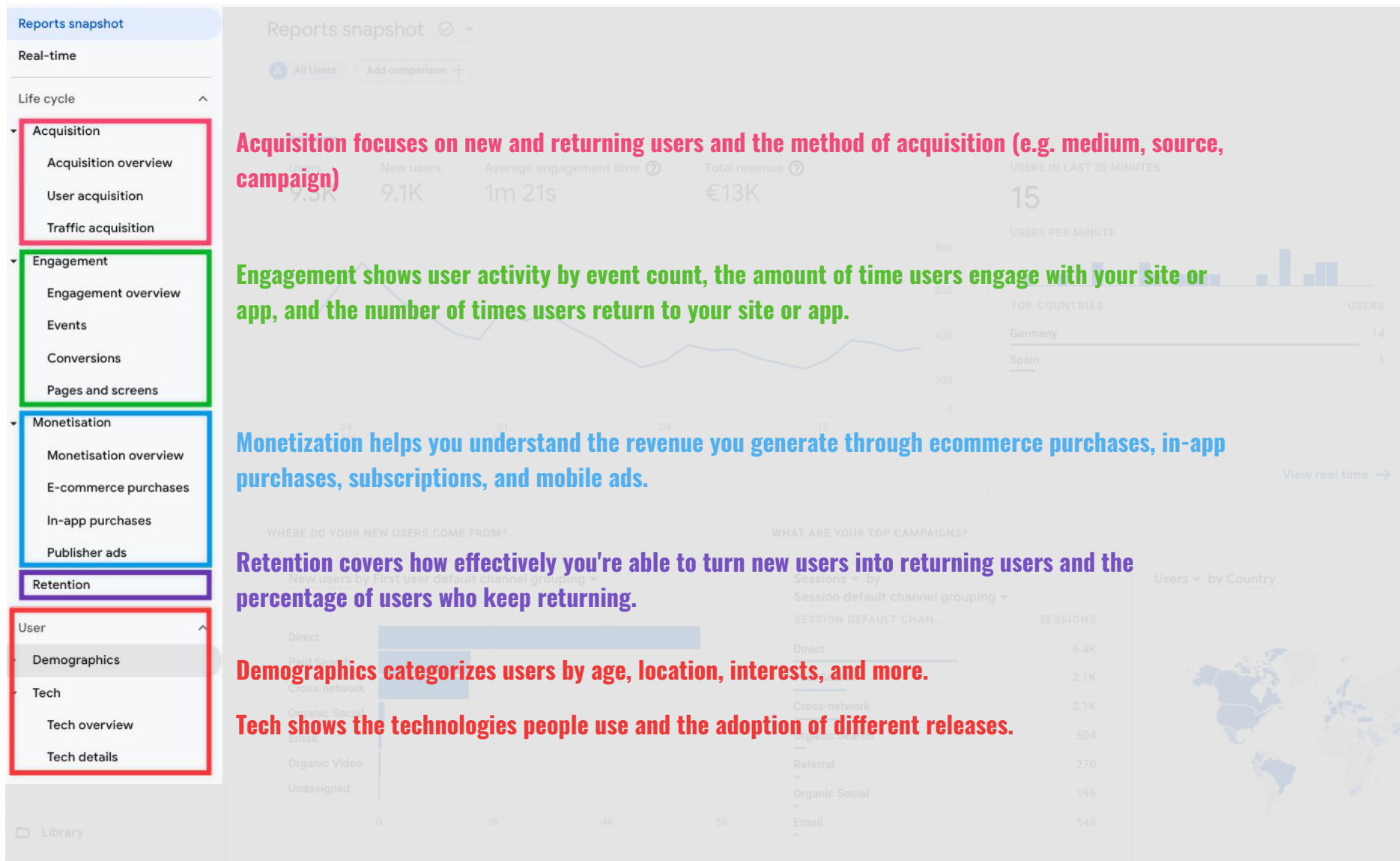
page_view	1
user_engagement	1

USER PROPERTIES ACTIVE NOW

- Enable **Debug Mode** to narrow test traffic down
- All event parameters are available per request
- Segmentation of **Debug Devices**

-> It is not enough to see if data was dispatched. The **final condition** of data is what matters

GA4 Reporting Suite



The screenshot shows the GA4 Reporting Suite interface. On the left, a navigation menu is visible with several categories highlighted by colored boxes: Acquisition (red), Engagement (green), Monetisation (blue), Retention (purple), and User (red). The main content area displays various reports, including a 'Reports snapshot' with key metrics like New users (9.1K), Average engagement time (1m 21s), and Total revenue (€13K). Below this, there are charts for 'Users in last 30 minutes', 'Users per minute', and 'Top countries' (Germany: 14, Spain: 1). Further down, there are reports for 'Where do your new users come from?' and 'What are your top campaigns?'. A world map titled 'Users by Country' is also visible.

Acquisition focuses on new and returning users and the method of acquisition (e.g. medium, source, campaign)

Engagement shows user activity by event count, the amount of time users engage with your site or app, and the number of times users return to your site or app.

Monetization helps you understand the revenue you generate through ecommerce purchases, in-app purchases, subscriptions, and mobile ads.

Retention covers how effectively you're able to turn new users into returning users and the percentage of users who keep returning.


Demographics categorizes users by age, location, interests, and more.


Tech shows the technologies people use and the adoption of different releases.


Enhanced Measurement


More tracking with less effort


× Enhanced measurement SAVE


 **Page views**
Capture a page view event each time that a page loads or the website changes the browser history state. Optionally turn off browser history-based events under advanced settings.
[Show advanced settings](#)


 **Scrolls**
Capture scroll events each time that a visitor gets to the bottom of a page.

 **Outbound clicks**
Capture an outbound click event each time a visitor clicks a link that leads them away from your domain(s). By default, outbound click events will occur for all links leading away from the current domain. Links to domains configured for cross-domain measurement (in Tagging Settings) won't trigger outbound click events.

 **Site search**
Capture a view search results event each time that a visitor performs a search on your site (based on a query parameter). By default, search results events will be fired any time that a page loads with a common search query parameter in the URL. Adjust which parameters to look for under advanced settings.
[Show advanced settings](#)

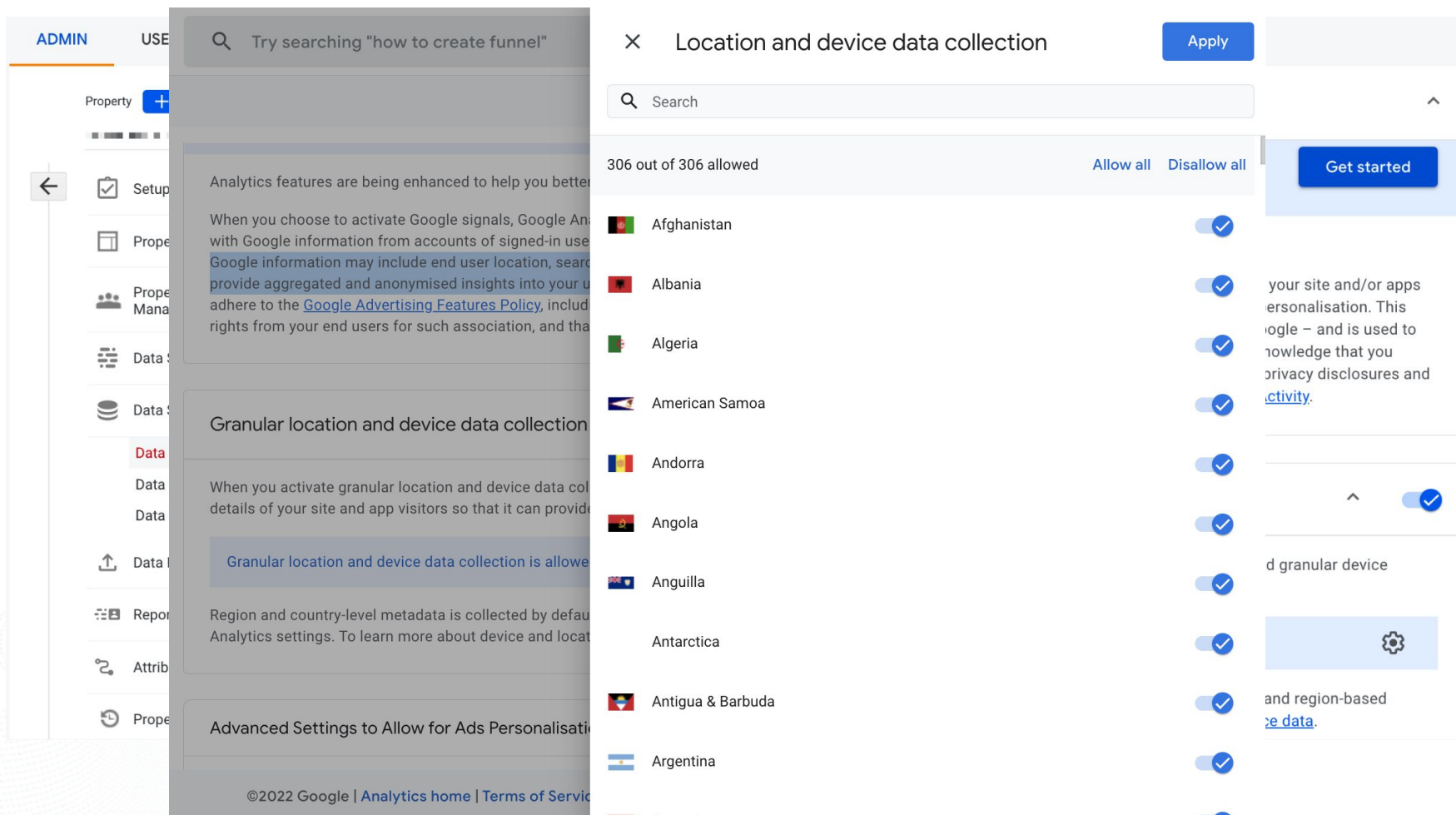
 **Video engagement**
Capture video play, progress and complete events as visitors view embedded videos on your site. By default, video events will be automatically fired for YouTube videos embedded on your site with [JS API support](#) enabled.

 **File downloads**
Capture a file download event each time that a link is clicked with a common document, compressed file, application, video or audio extension.

- 
- Out of the box event tracking, **no implementation required**
 - **gtag.js** automatically listens to predefined events
 - Granularity in event selection

Advertising Features

Improved personalisation, data quality & granularity



ADMIN USER

Try searching "how to create funnel"

Property +

Setup

Property

Property Manager

Data

Data

Data

Data

Data

Report

Attribution

Property

Location and device data collection

Apply

Search

306 out of 306 allowed

Allow all Disallow all

Get started

Afghanistan

Albania

Algeria

American Samoa

Andorra

Angola

Anguilla

Antarctica

Antigua & Barbuda

Argentina

Granular location and device data collection

Analytics features are being enhanced to help you better understand your users. When you choose to activate Google signals, Google Analytics will collect information from accounts of signed-in users. Google information may include end user location, search history, and other data. This information is used to provide aggregated and anonymised insights into your user behavior. To learn more about device and location data collection, see the [Google Advertising Features Policy](#), including the rights from your end users for such association, and the [Google Advertising Features Policy](#).

Granular location and device data collection

When you activate granular location and device data collection, Google Analytics will collect more detailed information about your site and app visitors so that it can provide more granular insights into their behavior. Granular location and device data collection is allowed for all countries.

Region and country-level metadata is collected by default in all Google Analytics settings. To learn more about device and location data collection, see the [Google Advertising Features Policy](#).

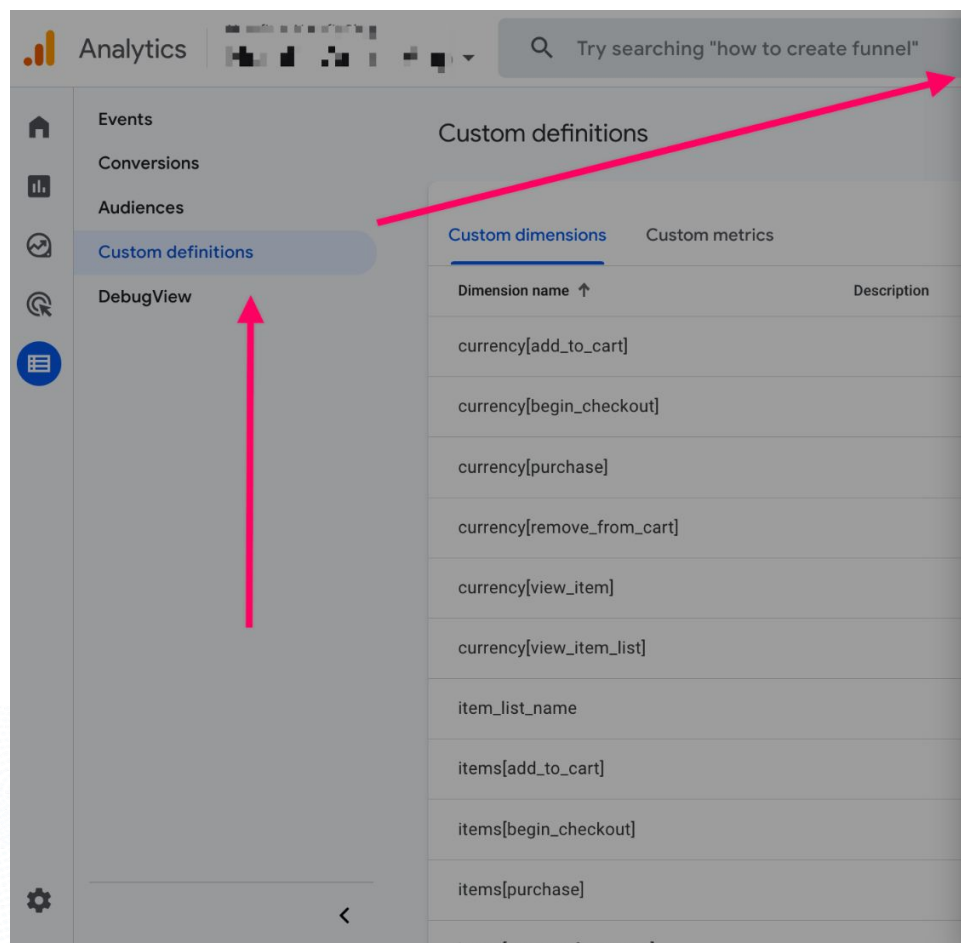
Advanced Settings to Allow for Ads Personalisation

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- Google Signals enable the tracking of demographics, interests and **cross-device behavior** of users (signed in with *Google Account*)
- Added **granularity** for controlling what data should not be collected in certain countries (i.e. location, device data, ads personalisation features)

Event Parameters

Sunset of Event Categories, Actions & Labels



Analytics

Try searching "how to create funnel"

Events

Conversions

Audiences

Custom definitions

DebugView

Custom definitions

Custom dimensions

Custom metrics

Dimension name ↑	Description
currency[add_to_cart]	
currency[begin_checkout]	
currency[purchase]	
currency[remove_from_cart]	
currency[view_item]	
currency[view_item_list]	
item_list_name	
items[add_to_cart]	
items[begin_checkout]	
items[purchase]	
items[remove_from_cart]	

× New custom dimension Save

Dimension name ⓘ

Scope ⓘ

Event

Description ⓘ

Event parameter ⓘ

Select an event parameter

- Flexible event customization
- Seamless management of **custom dimensions** (instant in **Debug View**)
- Real-time event **modification**
- **Registered** parameters automatically appear in the reports
- Only Event & User Scope parameters

Machine Learning Functions

ML to predict revenue and user behavior

- **Purchase probability** 🤑 - the probability that a user who was active in the last 28 days will make a purchase
- **Churn probability** 🏃 - the probability that a user who was active on your app or site within the last 7 days will not be active within the next 7 days
- **Revenue prediction** 📈 - the revenue expected from all purchase conversions within the next 28 days from a user who was active in the last 28 days.

Source	Total LTV	Churn Prob.
google / organic	10.000€	25%
google / cpc	16.000€	37.1%
referrals	5.000€	15%

The model requires training:

- Over a seven-day period **1,000 users triggered** the relevant predictive condition and that **1,000 users did not**
- Model quantity must be sustained over a period of time

III. Analysis Hub

Workspace for Ad-hoc analysis

Variables

Analysis Name: Exploration

Custom
12 Jan - 10 Feb 2021

SEGMENTS

- US
- Direct traffic
- Paid traffic
- Mobile traffic
- Tablet traffic

DIMENSIONS

- Event name
- Gender
- Country
- Device category
- User medium: Cros...
- Town/City

METRICS

- Active users
- Event count
- Transactions

Tab Settings

TECHNIQUE
Exploration

VISUALISATION

SEGMENT COMPARISONS
Drop or select segment

ROWS
Town/City

Start row: 1

Show rows: 10

Nested rows: No

COLUMNS
Device category

Start column group: 1

Show column groups: 5

VALUES

Exploration 1

Device category	mobile	desktop	tablet	Totals
Town/City	Active users	Active users	Active users	Active users
Totals	4,857 68.6% of total	1,884 26.6% of total	323 4.6% of total	7,080 100.0% of total
1 Berlin	469	138	16	623
2 Munich	252	231	6	479
3 Hamburg	334	56	9	399
4 Frankfurt	180	49	1	229
5 Stuttgart	159	40	8	207
6 Cologne	158	34	5	197
7 Hanover	98	19	5	122
8 Dortmund	74	14	4	92
9 Essen	58	29	3	90
10 Nuremberg			4	83

Right Click

Include only selection

Exclude selection

Create segment from selection

View users

TECHNIQUE

Free-form

Cohort exploration

Funnel exploration

Segment overlap

Path exploration

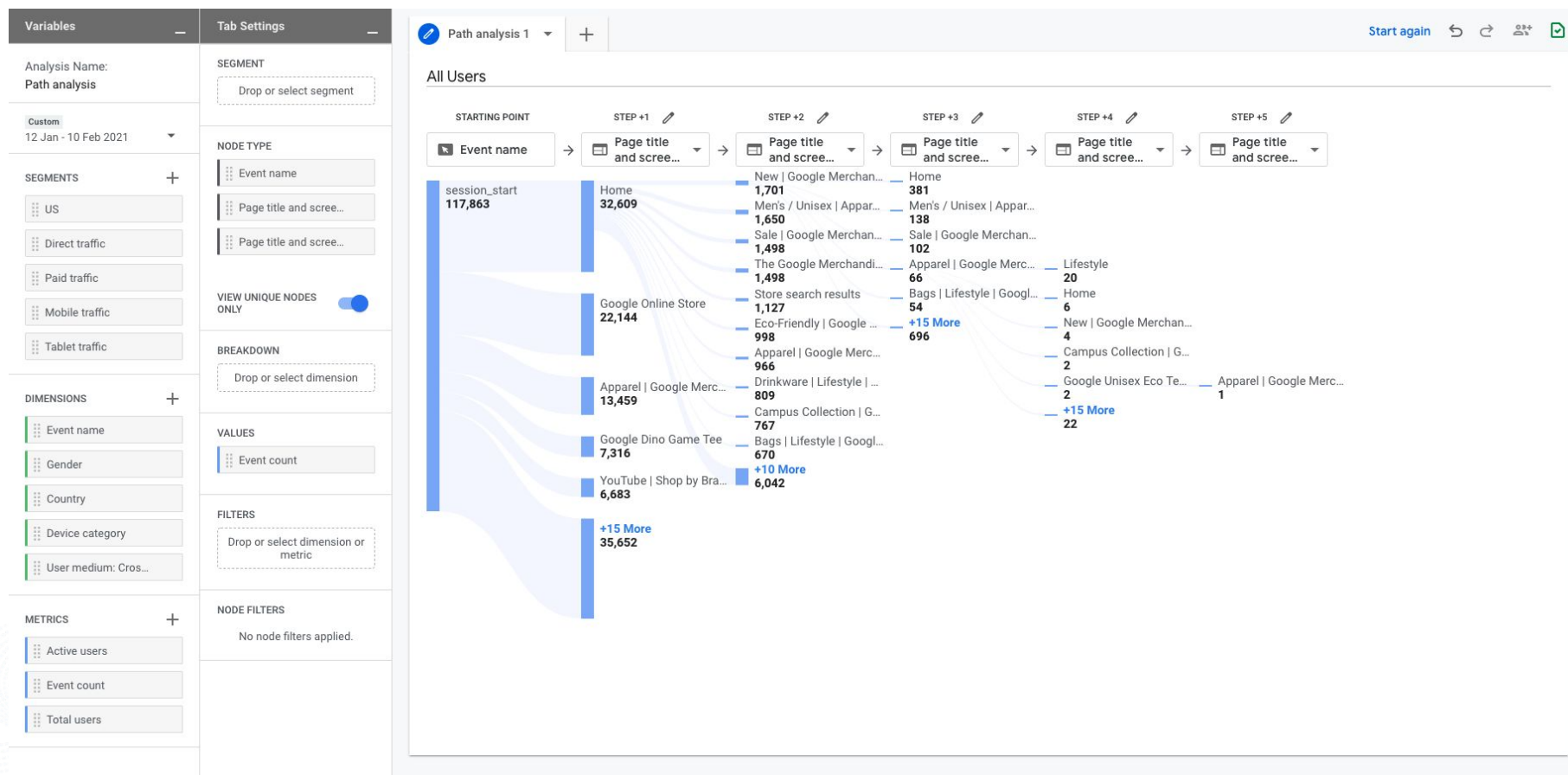
User explorer

User lifetime

- **Granular** reporting with many features right inside GA -> no need to export the data
- Multiple Analysis Techniques (e.g. Funnel, Cohorts, Exploration)
- Seamless **segment builder** right from the report
- Free template Gallery
- 7 available techniques

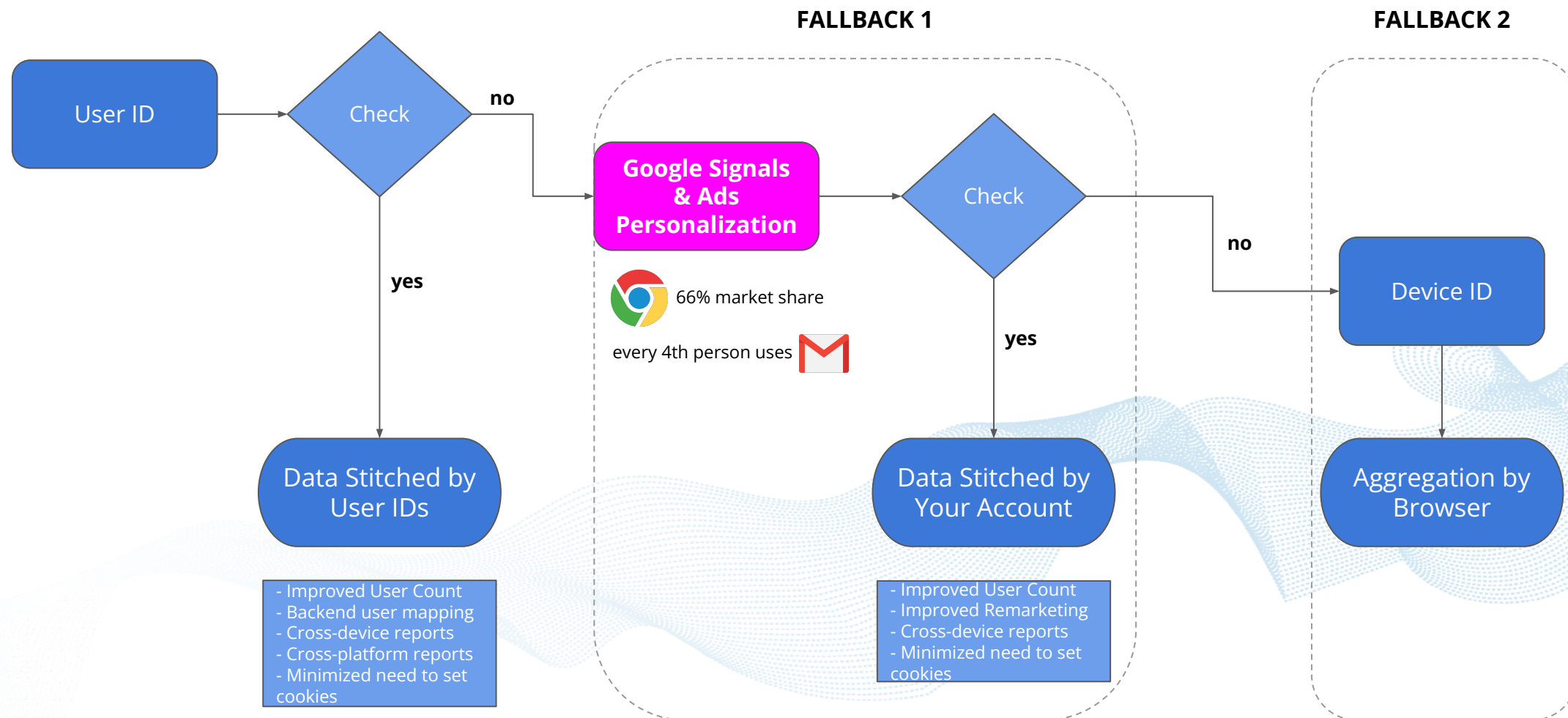
Path Analysis

Pathing that fulfills Behavior Flow Report



- Available for Page Titles, Event Names & Screen Classes
- **Segment comparison** is possible
- Seamless **segment builder** right from the report
- Can be drafted both from **Starting** and **Ending** points, i.e. forwards and backwards paths

IV. User Identity Reporting



V. New capabilities using BigQuery

BigQuery is a fully-managed, serverless **data warehouse** that enables scalable analysis over petabytes of data. It also has built-in **machine learning** capabilities

With BigQuery you can:

- Store your data at a cost of **0,20\$ per GB** (equivalent of storing 25 2-hour Movies for 10\$)
- Query your data at **5\$ per TB** (equivalent of 1.500 CD disks of data)
- Always get **10 GB** of storage and **1 TB** of query data per month **for free**



BigQuery

GA4 & BigQuery Integration

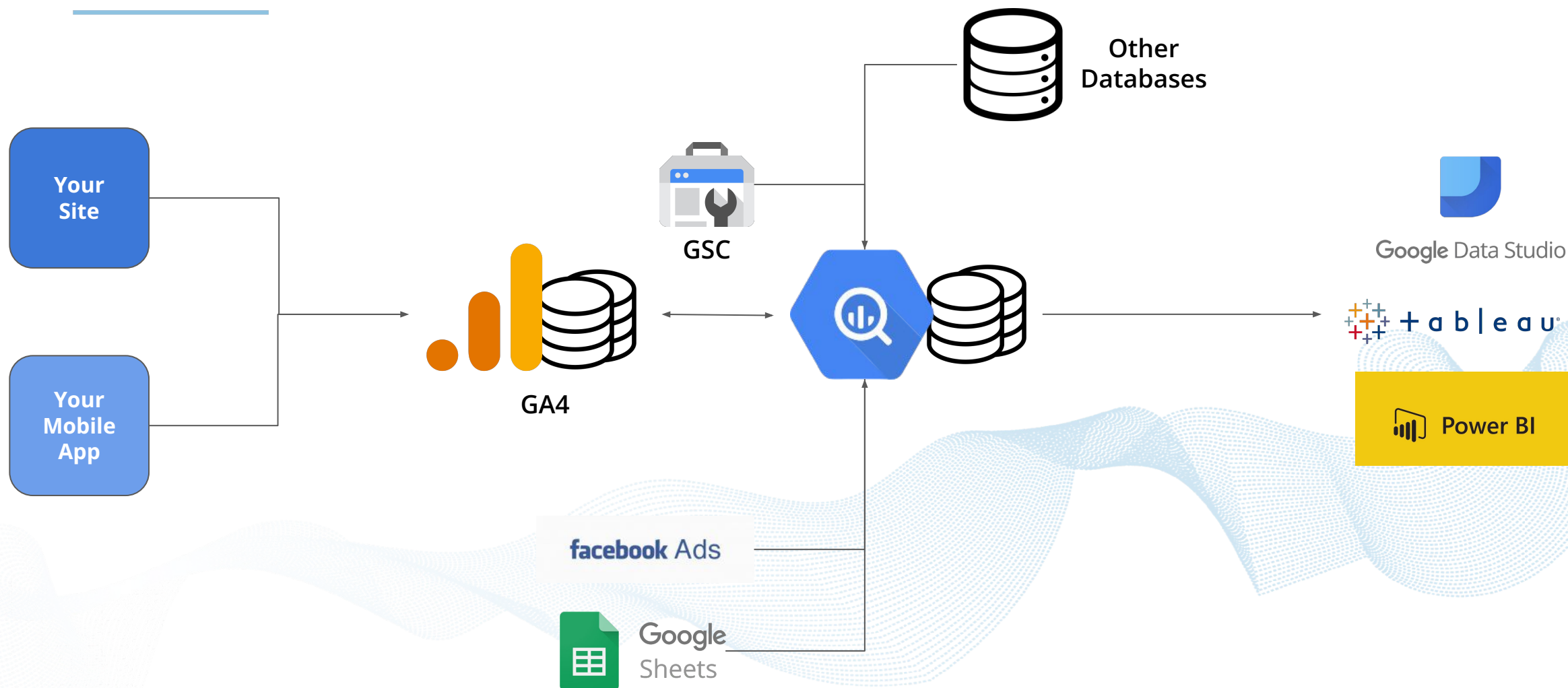
Previously only available in Google Analytics 360

- Get raw data directly into a data warehouse,
 - Unsampled data analysis
 - Predictive analytics
 - ML
- Export is free and executed within seconds
- Ability to get started for free using BigQuery Sandbox and Free Usage Limits (**GA360** Cost - \$150K+ a year)
- Combine various data sources in BigQuery
- Connect BigQuery to a BI Solution



BigQuery Integrations

Omnisource architecture for 360° View with BigQuery




So... Should I switch?

Universal Analytics will be going away

Last updated: March 16, 2022. Visit this page in the coming months for the latest information.

[Google Analytics 4](#) is our next-generation measurement solution, and it's replacing Universal Analytics. On **July 1, 2023**, standard Universal Analytics properties will stop processing new hits. If you still rely on Universal Analytics, we recommend that you [prepare to use Google Analytics 4](#) going forward.

- 
- After **July 1, 2023**, GA UA will stop processing new hits
 - The historical data will still be accessible for at least **6 months**
 - There is no direct migration option

The recommendation is to start using GA4 **asap** to start collecting data in the new format. If you are starting a new project, Google Analytics UA instances are not needed anymore

Questions?



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