

Custom reporting with GA4

...

Main features and use cases

Getting started

Hi 🖐️ we are back

Here is what you learnt in webinar 1:

- GA4 features & key differences UA vs GA4
- Actions required to create your GA4 account, track data and set it up properly
- How to start playing with built-in events

Today is an advanced GA4 webinar

- How to use and customise the standard reports
- How to use and customise the menu
- How to use UTM
- The three types of Explore reports and how they can help you

Our objective: get you enthusiastic about the possibilities of GA4!

None of these tasks are a 'must'.

Duration & Limitation

50 minutes of presentation + 20-30 minutes of Q&A

This is a webinar≠workshop.

We will answer some of the questions you asked via the questionnaire or you will receive short videos.

We don't have time to do some debugging on individual GA4 (sorry).

Chapter 1

Standard Reports

Content

- Let's understand how and when custom reports are useful
- Overview of the standards reports: where are they?
- How to customise the standard reports?

Let's understand how and when
custom reports are useful

What's important

- with reports, you visualise data to understand user behavior
- overview offers you a global vision
- detailed report allows you to dive in 1 or 2 dimensions

→ It's possible to customise reports according to what you want to know about your users and website.

What are dimension and metric

Dimension

Describes your data with text.

Ex: Event name: the name of an event that someone triggers on your website or application (click, scroll)

→ You can apply a metric to a dimension

Source

Metric

Quantitative measurement (a number): average, ratio, percentage, etc. It's always a number as opposed to text. You can apply mathematical operations to metrics.

Ex: Event count, which shows the total number of times an event is triggered.

Source

Examples of dimensions



- Landing page (where the user landed on the website and the session started).
For example, /schools/sv/
- Page path or page location (any page user visited during the session). For example: /schools/sv/
- Session source/medium (from where the user came from). For example, google / organic
- File name (the name of the file which can be downloaded from the website). For example, schools/sv/wp-content/uploads/2019/02/Lab-immersion-I.pdf

Examples of metrics

- Event Count (how many times the event happened on the website). For example, by default the event count in the standard reports is SUM of all events during this session including page_view, scrolls, session_starts, user_engagement and others.
- Engagement rate (The engagement rate is the percentage of engaged sessions on your website or mobile app).
- Total Users (Total number of unique users who logged an event)

Example of a use case: internal & external

Views in UA
(GA3)

Properties & Apps	Views
	Public externe 228855284 ☆
	Public interne 228851540 ☆
SV Site EPFL UA-177863500-1 >	Toutes les données du site Web 228791082 Open ☆

Customised standard reports created for Mediacom and added to the menu

Reports snapshot
Real-time
External & Internal Traffic ^
▼ Internal Traffic Reports
User acquisition / Internal ...
Traffic acquisition / Interna...
Pages and screens / Intern...
Landing page / Internal Only
▼ External Traffic Reports
User acquisition / External ...
Traffic acquisition / Extern...
Pages and screens / Extern...
Landing page / External Only
Life cycle ^
► Acquisition
► Engagement

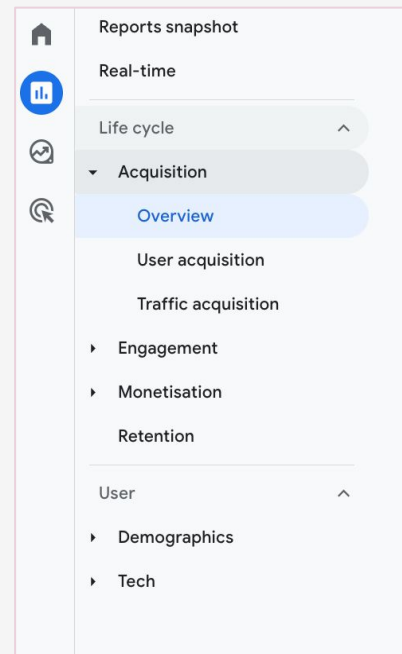
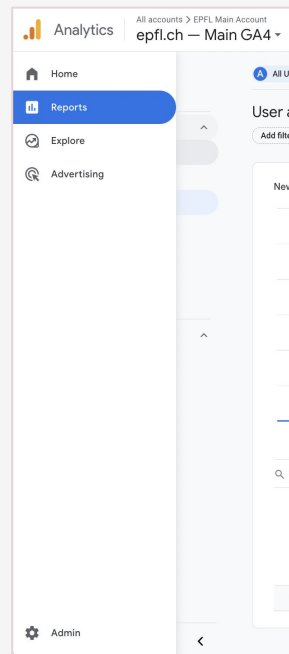
Standard Reports Overview

Where are the standard reports

Go to the main menu on the left —> Click
'Reports'

In the second menu you will see different types of reports similar to the reporting we had in UA.

Remember that data in GA4 is available in 24 hours, it is totally fine to have zero data about the current day.

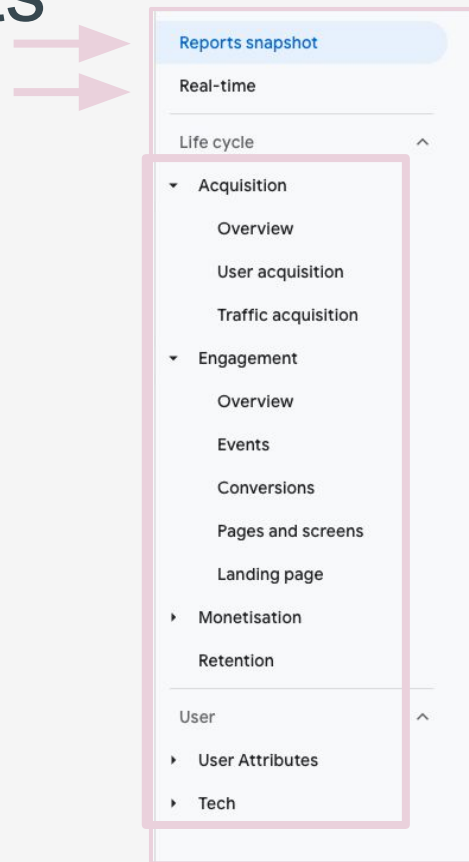


Get started with standard reports

- reports snapshot report
- realtime report
- predefined reports

→ Everyone with access to your Analytics account sees the same set of reports.

[Read Google documentation about reports](#)



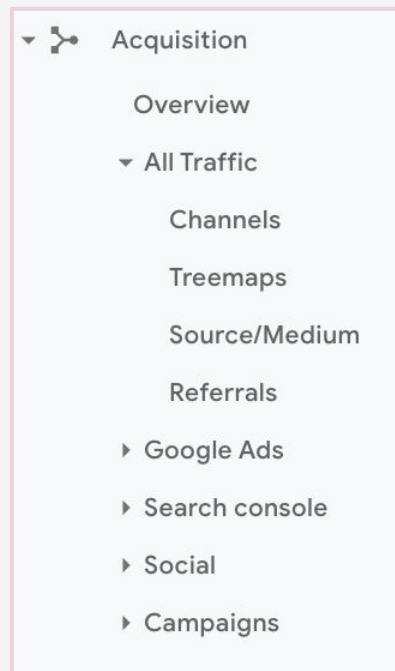
*There is a
'second' menu

Where to find UA Acquisition reports

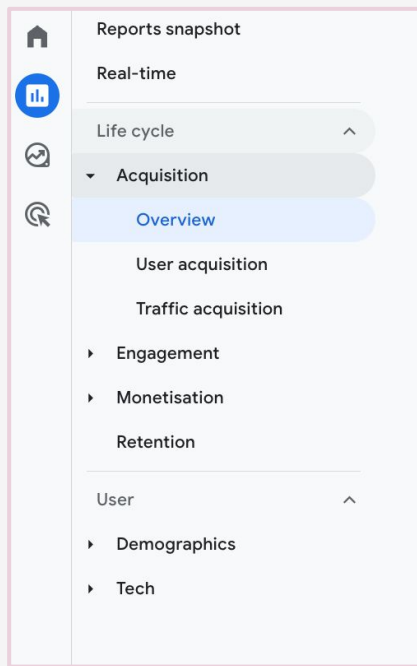
In GA4 Acquisition reports can be found also under Acquisition.

The difference from UA — there are only two: User & Traffic.

UA

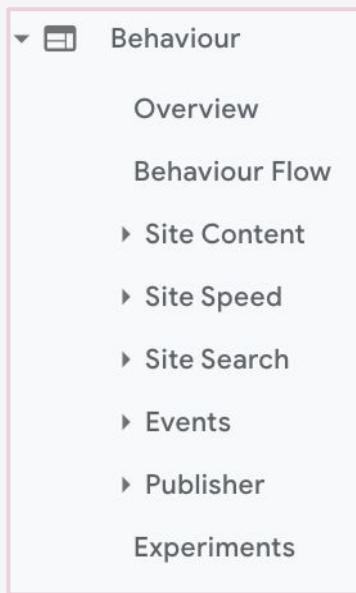


GA4

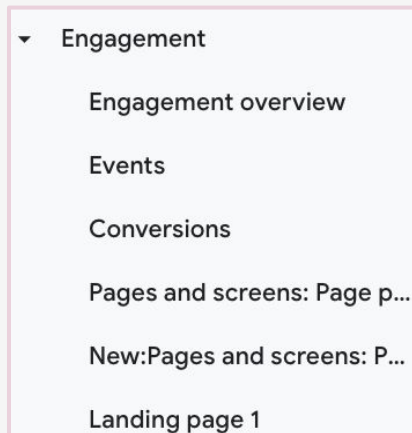


Examples of UA & GA4 data (no huge difference)

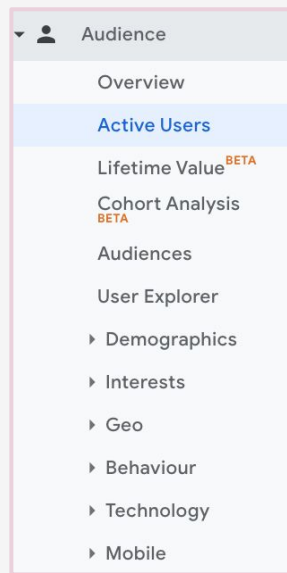
UA Behaviour



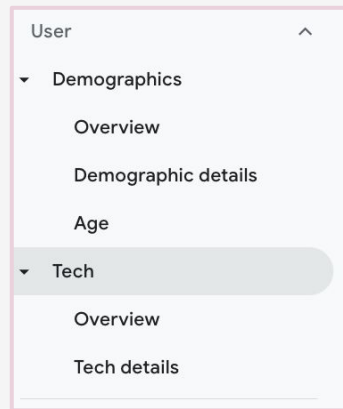
GA4 Engagement



UA Demographics & Tech



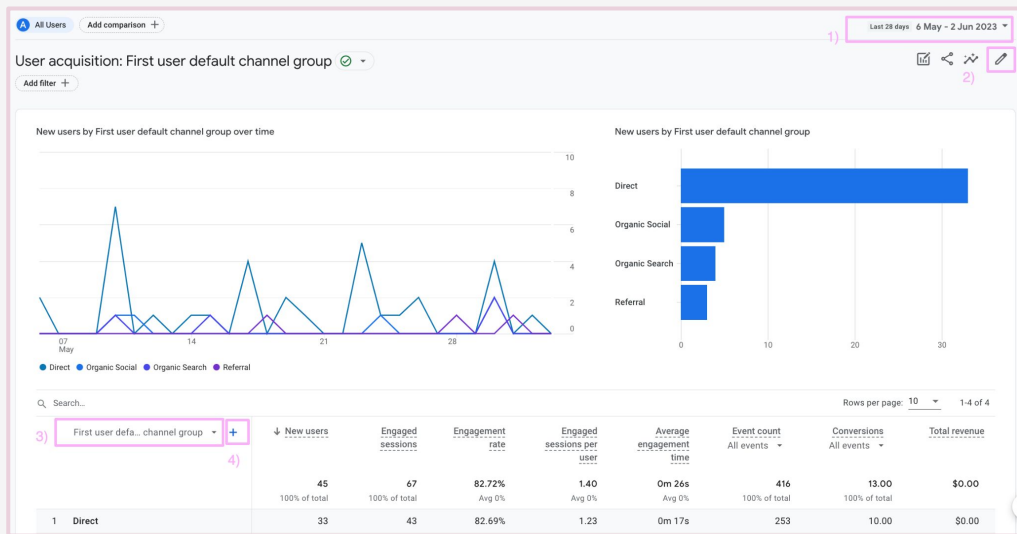
GA4 Demographics & Tech



How to use standard report to understand users

There are 4 main things we can do within reports:

- change date range
- apply filters
- change dimensions
- add second dimension

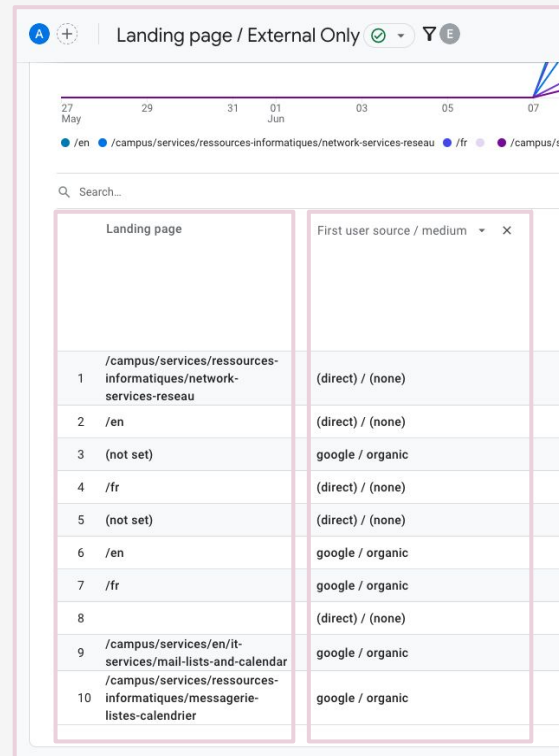


Secondary dimension: example of a use case

Landing Page:

- Where did user land?
- From where did the user come from?

You could add a filter to exclude internal data



The screenshot shows a web analytics interface with a top navigation bar indicating 'Landing page / External Only'. Below the navigation bar is a timeline from May 27 to June 07. A legend shows three data series: /en (blue), /campus/services/ressources-informatiques/network-services-reseau (purple), and /fr (pink). A search bar is present. The main content area displays a table with two columns: 'Landing page' and 'First user source / medium'. The table contains 10 rows of data, with the first row highlighted in light blue.

	Landing page	First user source / medium
1	/campus/services/ressources-informatiques/network-services-reseau	(direct) / (none)
2	/en	(direct) / (none)
3	(not set)	google / organic
4	/fr	(direct) / (none)
5	(not set)	(direct) / (none)
6	/en	google / organic
7	/fr	google / organic
8		(direct) / (none)
9	/campus/services/en/it-services/mail-lists-and-calendar	google / organic
10	/campus/services/ressources-informatiques/messagerie-listes-calendrier	google / organic



Here is what you need to remember

- Standard reports are similar to what we had in Universal Analytics
- One report in GA4 combines multiple reports from UA
- We can change a standard report by using its features (change data range, add second dimensions)

GA4 is more 'intentional' than UA: you need to decide what you want to know about your users and website.

Standard Report Customisation

Why would you customise the standard reports

- To recreate a view — Internal & External
- To understand how users find information: where they come from = channel
- To understand how users engage with your website: what they do on different pages/types of pages
- To know if users do what they are expected, for example, do they download the files?



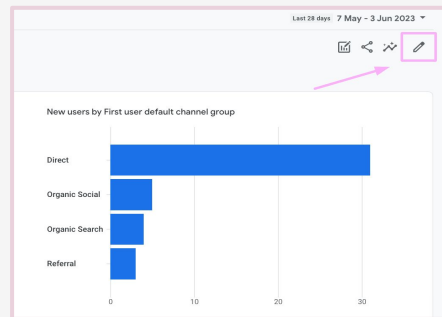
Here is what you can customise

- Apply **filters** to see data only about specific page group, for example, 'News' section or to exclude 'Internal traffic'
- Add additional **metrics and dimensions**
- Hide or add **graphs**
- Choose your favorite type of **charts**
- Save your customisation as a new report or save it on the current report you worked on

How to customise a standard report

- Click on the customise button (pencil) on the right side of any reports
- You will see the Customise menu
- We can change/add dimensions and metrics
- Add filters
- Hide or add charts

Step 1



Step 2

Customise report

REPORT DATA

- Dimensions >
- Metrics >

REPORT FILTER

- + Add filter

CHARTS

- Line Chart >
- Bar Chart >

REPORT TEMPLATE

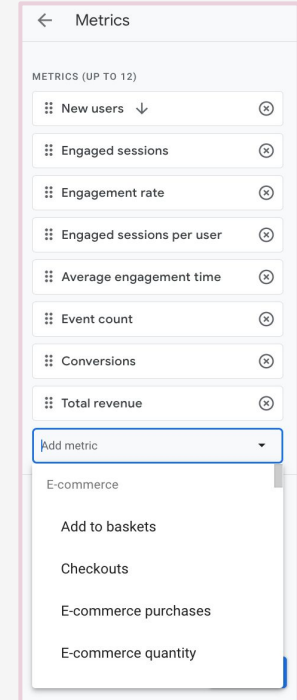
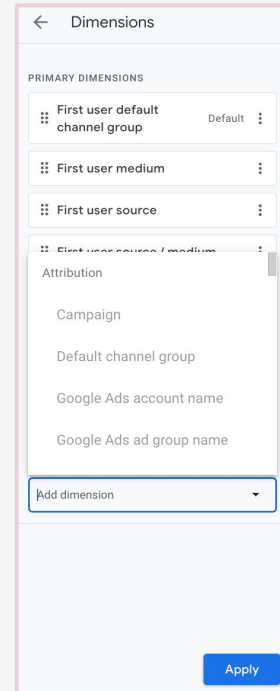
User acquisition

SUMMARY CARDS

- New users by First user default chan... ⋮
- New users by First user default chan... ⋮
- + Create new card

Add or delete dimensions & metrics

- We can:
 - add new metrics or dimensions
 - delete metrics / dimensions
- Choose from the drop down menu the dimension or metric
- Click apply



Where to find the dimensions & metrics

- After applying changes we can find dimensions in the first column and choose the main from dropdown menu.
- New metrics will be added as an additional column in the report

Q Search...

Dimensions

↓ First user defa... channel group ▾

+

↓ New users

Engaged sessions

Engagement rate

Engaged sessions per user

Average engagement time

Event count
All events ▾

Conversions
All events ▾

Total revenue

43

67

82.72%

1.46

0m 32s

482

11.00

\$0.00

100% of total

100% of total

Avg 0%

Avg 0%

Avg 0%

100% of total

100% of total

1 Direct

31

43

82.69%

1.30

0m 26s

319

8.00

\$0.00

2 Organic Social

5

8

100%

1.33

0m 33s

39

2.00

\$0.00

3 Organic Search

4

14

77.78%

3.50

1m 17s

91

1.00

\$0.00

4 Referral

3

2

66.67%

0.67

0m 46s

33

0.00

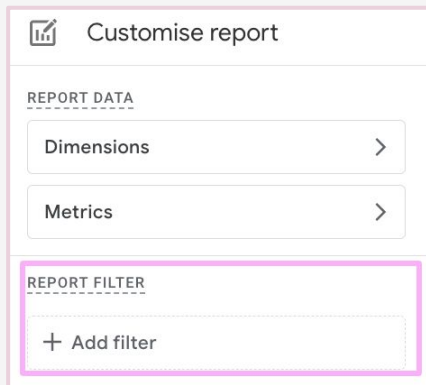
\$0.00

Rows per page: 10 ▾

1-4 of 4

Customise Standard report by applying filters

1) Click 'Add filter'



Customise report

REPORT DATA

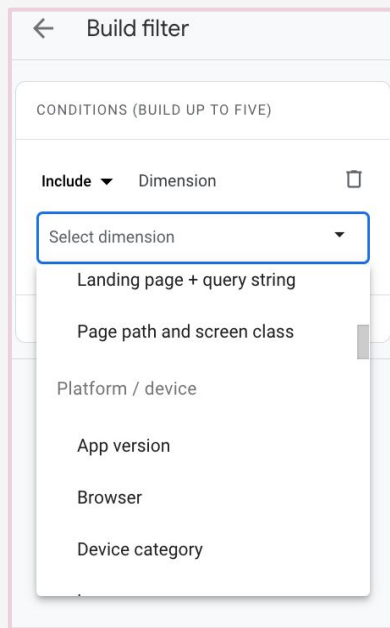
Dimensions >

Metrics >

REPORT FILTER

+ Add filter

2) Select dimension



Build filter

CONDITIONS (BUILD UP TO FIVE)

Include Dimension

Select dimension

Landing page + query string

Page path and screen class

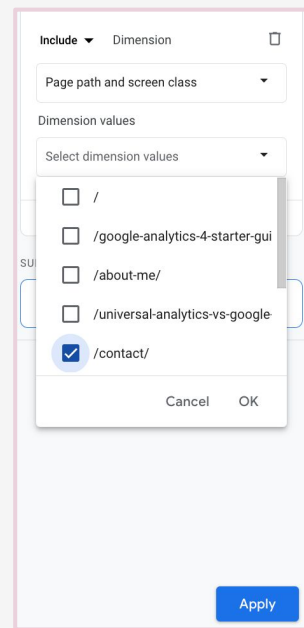
Platform / device

App version

Browser

Device category

3) Select value



Include Dimension

Page path and screen class

Dimension values

Select dimension values

☐ /

☐ /google-analytics-4-starter-gui

☐ /about-me/

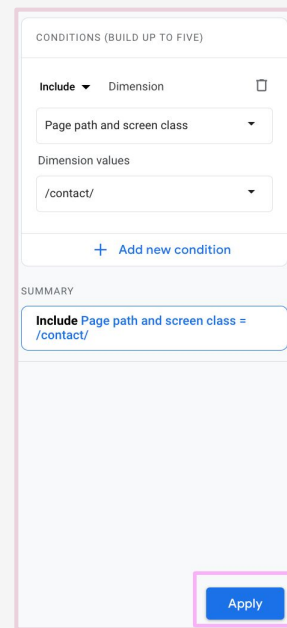
☐ /universal-analytics-vs-google

☒ /contact/

Cancel OK

Apply

4) Click Apply



CONDITIONS (BUILD UP TO FIVE)

Include Dimension

Page path and screen class

Dimension values

/contact/

+ Add new condition

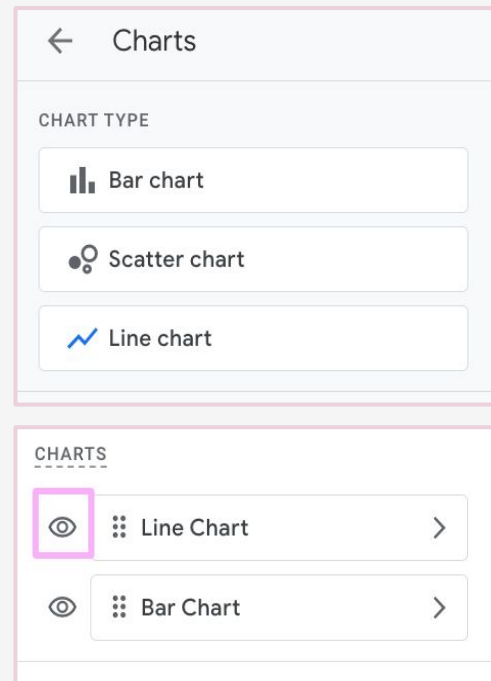
SUMMARY

Include Page path and screen class = /contact/

Apply

Choose your favorite type of charts

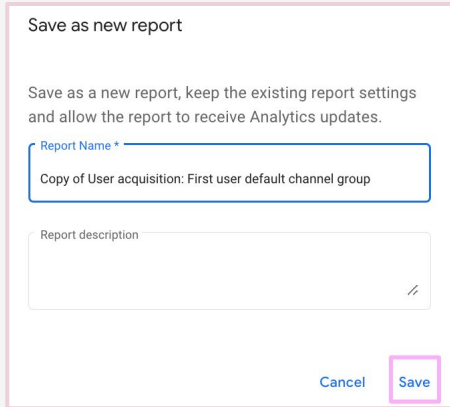
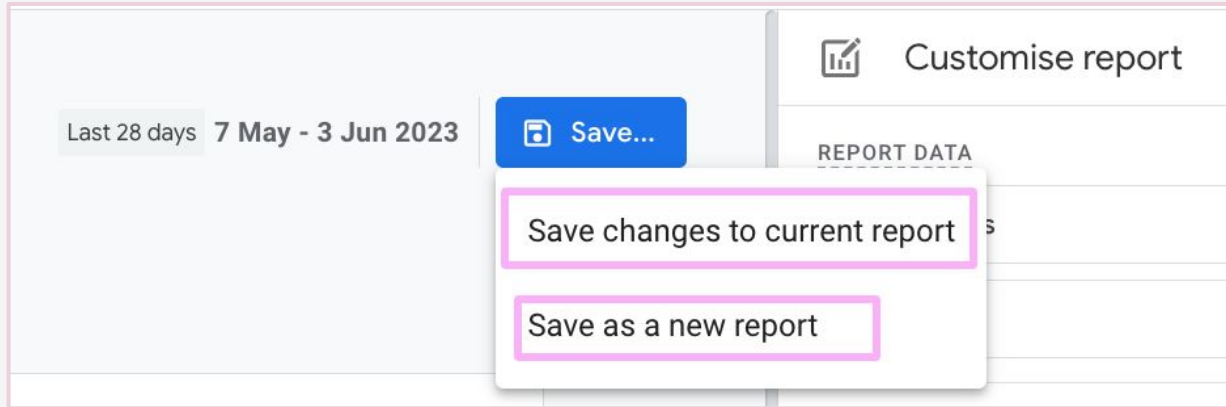
- There are three types of charts we can add: bar, scatter and line
- We can add additional chart or hide to keep only one in the report
- Choose chart type or hide the one you do need
- Click 'Apply' changes



Two options to save your customisation

After applying the changes we can save the changes to current report or save as a new report.

Click save as a new -> name the report-> click '**Save**'.



Example of a standard report customisation

All Users

First user defa... channel group ▾ +		↓ New users -----
		648 100% of total
1	Direct	383
2	Organic Search	231
3	Referral	32
4	Organic Social	2

Internal Data Excluded

First user defa... channel group ▾ +		↓ New users -----
		605 100% of total
1	Direct	354
2	Organic Search	217
3	Referral	32
4	Organic Social	2

Add internal IP filter

Instead of a view, you can create a customised standard reports including a filter.

The filter is not applied to the whole data stream (it is set on 'testing').
The filter will apply only to your selected report(s).

Your links to your tutorial videos

Watch the video (EN): [Navigating through the custom report use case: Filtering internal data](#)

[Regarder la vidéo en français](#)

Chapter 2

Menu Customisation

Why would you customise the menu

Once you have created your reports, you want to access them easily.
Customise the menu to easily access your customised reports.

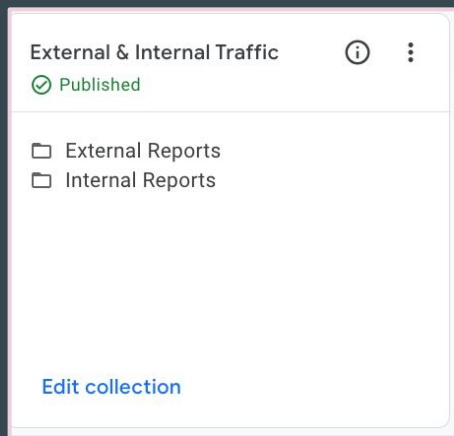
With UA, you used to have different views.

Views are gone, but you can customise standard reports instead by applying filters and adding your reports in the menu

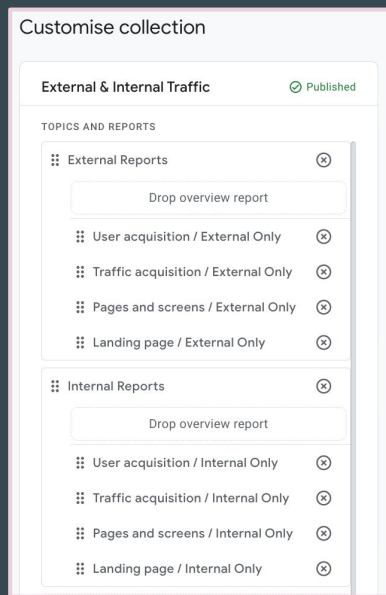
The 'menu' is called the 'report navigation' in Google documentation.

Example: External & Internal Traffic

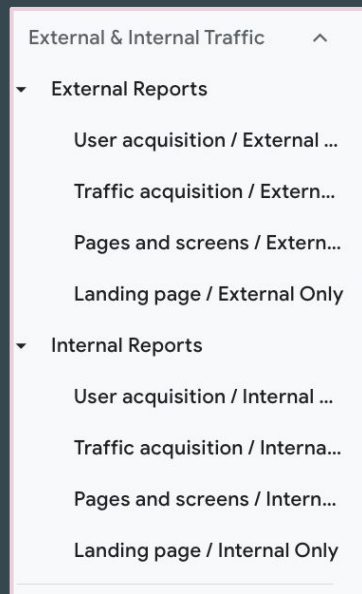
Library view



Library view

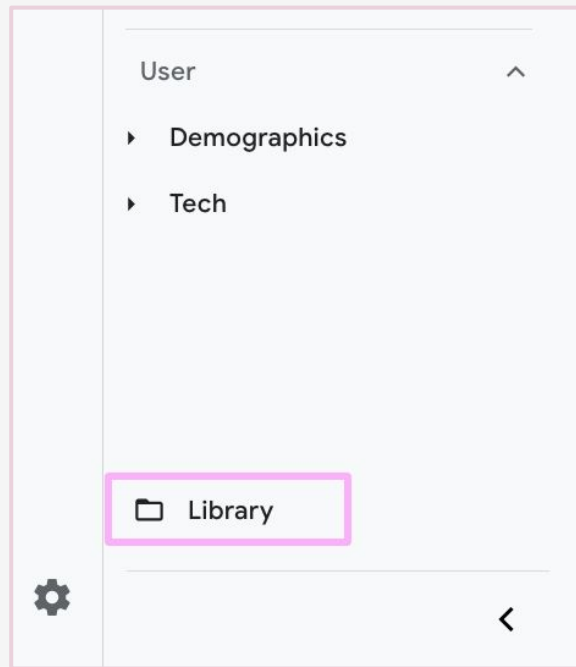


View in the menu



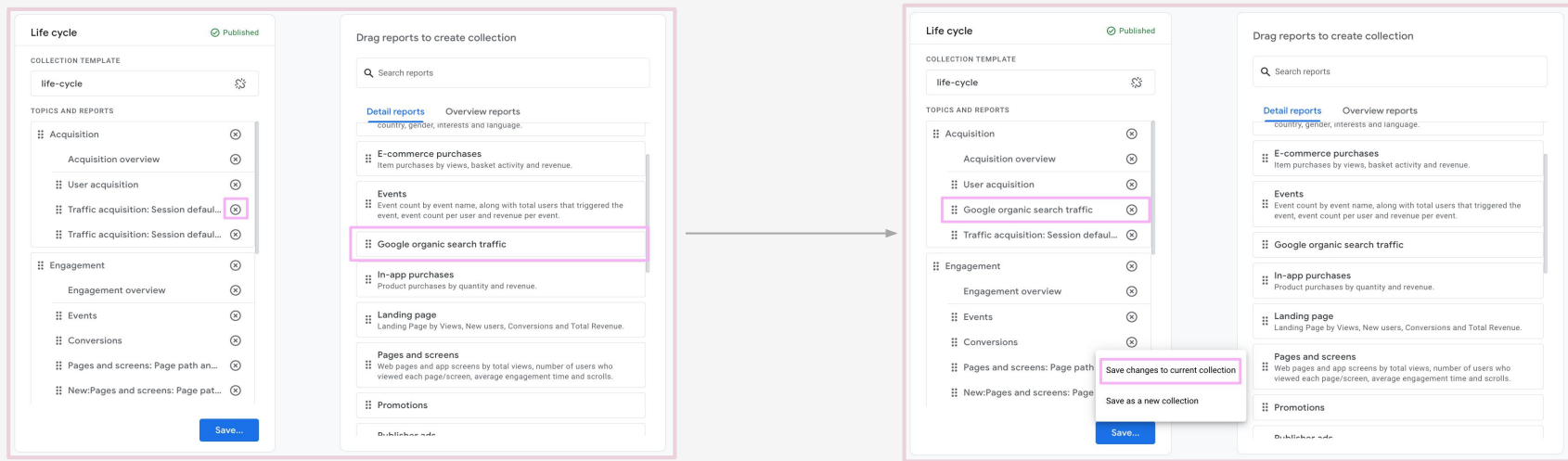
New reports are saved in the library

- We can add or delete reports from the menu.
- When you create new report by customising the current one, it won't be automatically available in the menu.
- Use 'Library' section for menu changes.



Customise menu to access favorite reports easily

We can delete report we do need by clicking on 'X' and drag reports from right to left we would like to add. Click '**Save**' to apply changes and choose '**Save changes to the current collection**'.





Your links to your tutorial videos

Watch the video (EN): [How to customisation the menu/navigation](#)

[Regarder la vidéo en français](#)

Chapter 3

UTM Data and Tracking

Why would you use UTM

One of the most common case where you can use UTMs is email marketing campaigns.

Example:

https://www.epfl.ch/?utm_campaign=summer&utm_medium=email&utm_source=newsletter_1

We use UTMs to identify traffic source and other parameters.

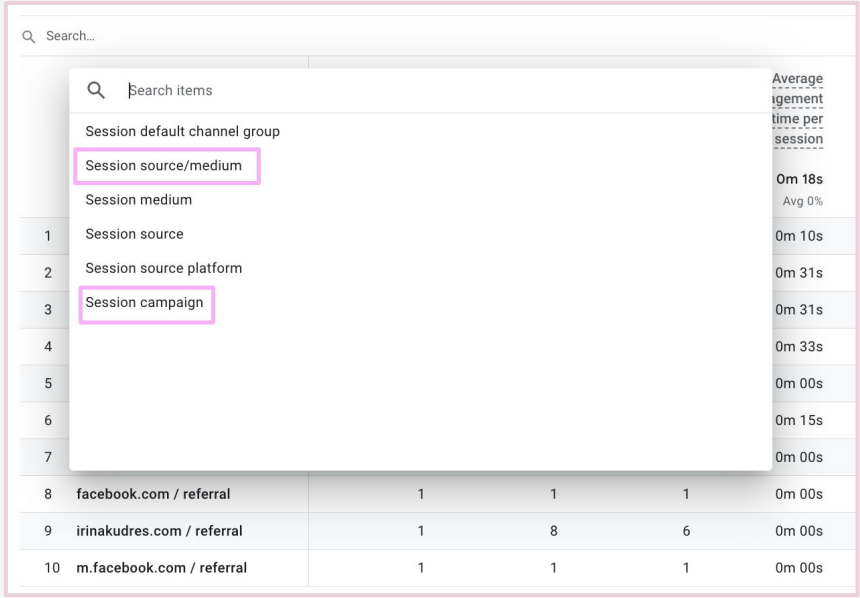


Here is what you need to remember

- The UTM parameters are not visible in the default channel grouping
- In GA4 you need to customise the report to see the UTM parameters
- You need to follow Google's best practices to create the UTM right otherwise it will not be grouped by default correctly
- If you don't add the correct UTM grouping, there are unassigned in the default group channel

How to find the UTM data

- Find the data about UTMs → go to the Acquisition report
- Choose Traffic or User reports
- Choose dimension ***Session source/medium*** or ***Session campaign***
- Use [help page](#) of Google to create UTMs



The screenshot shows the Google Analytics interface with a search bar at the top. Below the search bar, a dropdown menu is open, displaying a list of dimensions. The dimensions listed are: Session default channel group, Session source/medium (highlighted with a pink box), Session medium, Session source (ranked 1), Session source platform (ranked 2), Session campaign (highlighted with a pink box), and several other unnamed dimensions (ranked 4, 5, 6, 7). To the right of the dropdown, a table shows the average engagement time per session for each dimension. The table has two columns: the dimension name and the average engagement time. The data is as follows:

Dimension	Average engagement time per session
Session default channel group	0m 18s
Session source/medium	Avg 0%
Session medium	0m 10s
Session source	0m 31s
Session source platform	0m 31s
Session campaign	0m 33s
Unnamed dimension 4	0m 00s
Unnamed dimension 5	0m 00s
Unnamed dimension 6	0m 15s
Unnamed dimension 7	0m 00s
facebook.com / referral	0m 00s
irinakudres.com / referral	0m 00s
m.facebook.com / referral	0m 00s

Your links to your tutorial videos

Watch the video (EN): [How to find UTM in the default channel grouping](#)

[Regarder la vidéo en français](#)

Chapter 4

Exploration Reports

Content

- Overview of the exploration reports
- Types of exploration reports:
 - Free-form
 - Funnel
 - Path

*This is advanced Analytics

Exploration Reports — New feature in GA4

Similar to the Looker studio functionality, you can now build your reports within GA4.

Explorations

Start a new exploration

[Template gallery](#)

Blank
Create a new exploration

Free-form
What insights can you uncover with custom charts and tables?

Funnel exploration
What user journeys can you analyse, segment and breakdown with multi-step funnels?

Path exploration
What user journeys can you uncover with tree graphs?

Type	Name ↓	Owner	Last modified ↓	Property	
👤	Funnel	Irina Serdyukovskaya	28 May 2023	Irina Kudres	⋮
👤	Free-form	Irina Serdyukovskaya	19 Apr 2023	Irina Kudres	⋮
👤	User behaviour	Irina Serdyukovskaya	19 Apr 2023	Irina Kudres	⋮
👤	Conversion	Irina Serdyukovskaya	19 Apr 2023	Irina Kudres	⋮

Type of Exploration Reports

What are the most used Exploration reports

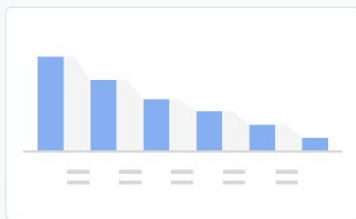
There are 3 most used types of reports you probably need:

1. free-form,
2. funnel exploration,
3. path exploration.



Free-form

What insights can you uncover with custom charts and tables?



Funnel exploration

What user journeys can you analyse, segment and breakdown with multi-step funnels?



Path exploration

What user journeys can you uncover with tree graphs?

All reports are stored in the 'Explorations'


Take a template and customise it.

You find your customised explore reports in the explore section.


Explorations

Start a new exploration


Template gallery




Blank
Create a new exploration






Free-form
What insights can you uncover with custom charts and tables?



Funnel exploration
What user journeys can you analyse, segment and breakdown with multi-step funnels?



Path exploration
What user journeys can you uncover with tree graphs?

Type	Name ↓	Owner	Last modified ↓	Property	
	Free-form	Irina Serdyukovskaya	14:36	Irina Kudres	⋮
	Funnel	Irina Serdyukovskaya	28 May 2023	Irina Kudres	⋮
	Free-form	Irina Serdyukovskaya	19 Apr 2023	Irina Kudres	⋮

Free Form Report

Free Form — Explore your data using tables

Delve into data using free-form exploration technique:

- Visualize data in a table or graph.
- Arrange and order the rows and columns of the table as you like.
- Compare multiple metrics side by side.
- Create nested rows to group the data.
- Refine the free-form exploration using segments and filters.
- Create segments and audiences from selected data.

→ It's highly customisable and flexible

→ We can download it in CSV or PDF.

Free Form Report — Overview

- It is like advanced Google Sheet
- Possible to combine different dimensions and metrics
- Example:
 - City & Device Category — dimensions
 - Active users — metric

Free-form 1			
Device category	desktop	mobile	Totals
Town/City	Active users	Active users	↓ Active users
Totals	47 95.9% of total	3 6.1% of total	49 100.0% of total
1 Columbus	16	0	16
2 (not set)	5	1	5
3 Toronto	3	0	3
4 Birmingham	2	0	2
5 London	2	0	2
6 Ankara	1	0	1
7 Bergamo	1	0	1
8 Boisar	1	0	1
9 Brighton	1	0	1
10 Canberra	1	0	1

Free Form Report — Many things to customise

- Add new dimensions or/and metrics using '+'
- Drag and drop the dimension or metric to row or column section
- Customise data range
- Add more rows to be shown (10 is shown by default)
- Add filters
 - For example: choose session source/medium contains 'google'.

This screenshot shows the left panel of the Free Form Report configuration interface. It is divided into two main sections: 'Variables' and 'Tab settings'. The 'Variables' section includes a 'Custom' dropdown menu showing the date range '5 May - 3 Jun 2023'. Below this are four sections: 'SEGMENTS' (US, Direct traffic, Paid traffic, Mobile traffic, Tablet traffic), 'DIMENSIONS' (Event name, Gender, Country, Device category, First user medium, Town/City), and 'METRICS' (Active users, Event count, Transactions). Each section has a '+' icon to add more items. The 'Tab settings' section includes a 'TECHNIQUE' dropdown set to 'Free-form', a 'VISUALISATION' section with icons for table, gauge, line, and map, a 'SEGMENT COMPARISONS' section with a 'Drop or select segment' button, and a 'ROWS' section with 'Town/City' as the dimension, 'Start row' set to 1, 'Show rows' set to 10, and 'Nested rows' set to 'No'. The 'COLUMNS' section has 'Device category' as the dimension, 'Start column group' set to 1, 'Show column groups' set to 5, and 'Active users' as the metric.

This screenshot shows the right panel of the Free Form Report configuration interface. It includes a 'Custom' dropdown menu showing the date range '5 May - 3 Jun 2023'. Below this are four sections: 'SEGMENTS' (US, Direct traffic, Paid traffic, Mobile traffic, Tablet traffic), 'DIMENSIONS' (Event name, Gender, Country, Device category, First user medium, Town/City), 'METRICS' (Active users, Event count, Transactions), and 'FILTERS' (Drop or select dimension or metric). Each section has a '+' icon to add more items. The 'ROWS' section has 'Town/City' as the dimension, 'Start row' set to 1, 'Show rows' set to 10, and 'Nested rows' set to 'No'. The 'COLUMNS' section has 'Device category' as the dimension, 'Start column group' set to 1, 'Show column groups' set to 5, and 'Active users' as the metric. The 'VALUES' section has 'Drop or select metric' and 'Cell type' set to 'Bar ch...'. The 'FILTERS' section has 'Drop or select dimension or metric'.

Example of Free Form Report: #1 Search results

What are users
searching for via
'Search'?

Page referrer		Search term	Event count
Totals			12,193 100% of total
1	https://people.epfl.ch/	ETU	36
2	https://www.epfl.ch/	Search	26
3	https://www.epfl.ch/	logement	27
4	https://people.epfl.ch/	EPFL	19
5	https://www.epfl.ch/	sesame	41
6		CPH	22
7		text is precious	17
8	https://people.epfl.ch/	COMPTA	14
9	https://people.epfl.ch/	IEM	15
10	https://www.epfl.ch/	emploi	11

Example of Free Form Report — File download

See the data
about downloads
of the files on
our website.

Free-form 1			Dimensions		Metrics	
Page path + query string	File name	File extension	↓ Active users	Event count		
Totals			10 100.0% of total	13 100.0% of total		
1	/schools/sv/education/master-in-life-sciences-engineering/lab-immersion/	/schools/sv/wp-content/uploads/2019/02/Lab-immersion-I.pdf pdf	2	2		
2	/schools/sv/education/master-in-life-sciences-engineering/lab-immersion/	/schools/sv/wp-content/uploads/2019/03/Student-evaluation-form.docx docx	2	2		
3	/schools/sv/education/master-in-life-sciences-engineering/master-project/	/schools/sv/wp-content/uploads/2022/10/Master-Thesis-Rules-2022-2023.pdf pdf	2	3		



Your links to your tutorial videos

Watch the video (EN): [How to find the date of a file download event](#)

[Regarder la vidéo en français](#)

Funnel Exploration

Funnel Exploration Reports

You visualize the steps your users take to complete a task and quickly see how well they are succeeding or failing at each step.

With this information, you can improve inefficient or abandoned customer journeys.

For example: explore how many users download file.

Source

Funnel Report — Add Dimensions & Metrics

- Add new dimensions or metrics
- Change or add new steps
- Add more rows
- Add filters

Custom
5 May - 3 Jun 2023

TECHNIQUE
Funnel exploration

SEGMENTS +

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

DIMENSIONS +

- Event name
- Gender
- Country
- Device category
- First user medium

METRICS +

- Active users
- Event count

Visualisation
Standard funnel

MAKE OPEN FUNNEL ☐

SEGMENT COMPARISONS
Drop or select segment

STEPS

- First open/visit
- Session start
- Screen/Page view
- Purchase

BREAKDOWN
Drop or select dimension

Rows per dimension
5

BREAKDOWN

Drop or select dimension

Rows per dimension
5

SHOW ELAPSED TIME ☐

NEXT ACTION

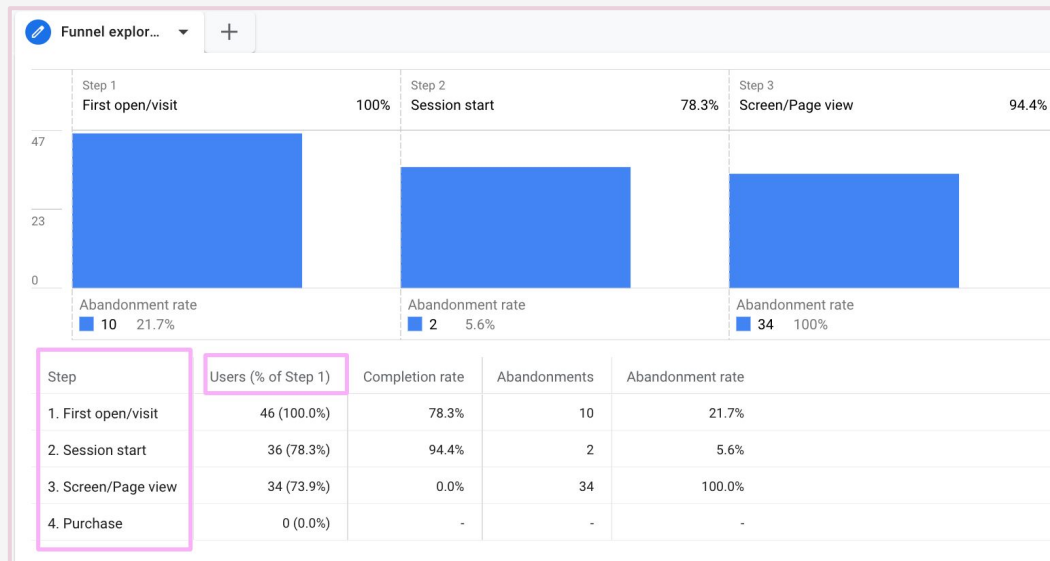
Drop or select dimension

FILTERS

Drop or select dimension or metric

Funnel Report — Understand User's Journey

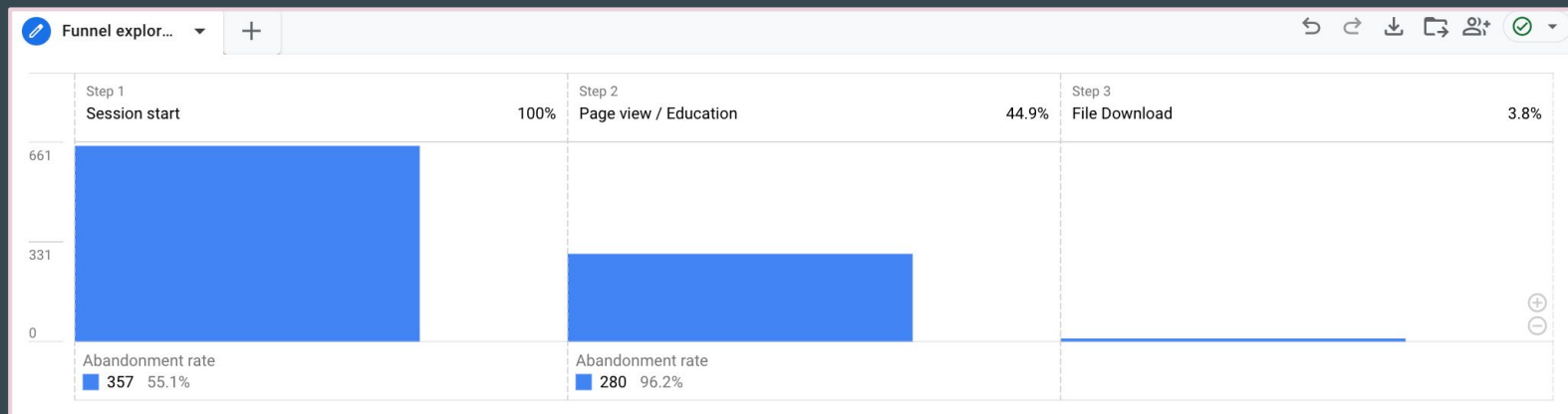
Funnel report helps to understand the user journey steps and how many of the users make action we expect (downloading the file, filling the form).



Funnel Report — Example

We can see how users are getting through the funnel. For example:

- Step 1: all users landed on the website of the school
- Step 2: users visited the 'Education' section of the website
- Step 3: download of the file about the program



Path Exploration

Path Exploration

Why use a Path exploration report?

- Find the top pages that new users open after opening the home page.
- Uncover looping behavior which may indicate users becoming stuck.
- Determine the effects of an event on subsequent users actions.
- Funnel report vs Path report: aggregated data about several users vs detailed data about group of users/one user behaviour

Source

Path Exploration Report — Overview

Exploration Name:
Path exploration

Custom
5 May - 3 Jun 2023

SEGMENTS +
US
Direct traffic
Paid traffic
Mobile traffic
Tablet traffic

DIMENSIONS +
Event name
Gender
Country
Device category
First user medium

TECHNIQUE
Path exploration

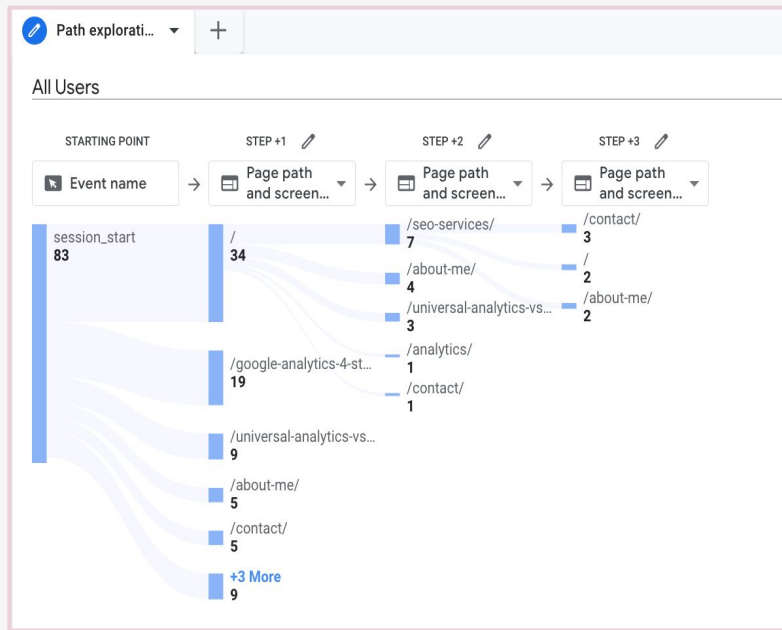
SEGMENT
Drop or select segment

NODE TYPE
Event name
Page title and scree...
Page title and scree...
Page path and scre...

VIEW UNIQUE NODES ONLY ☒

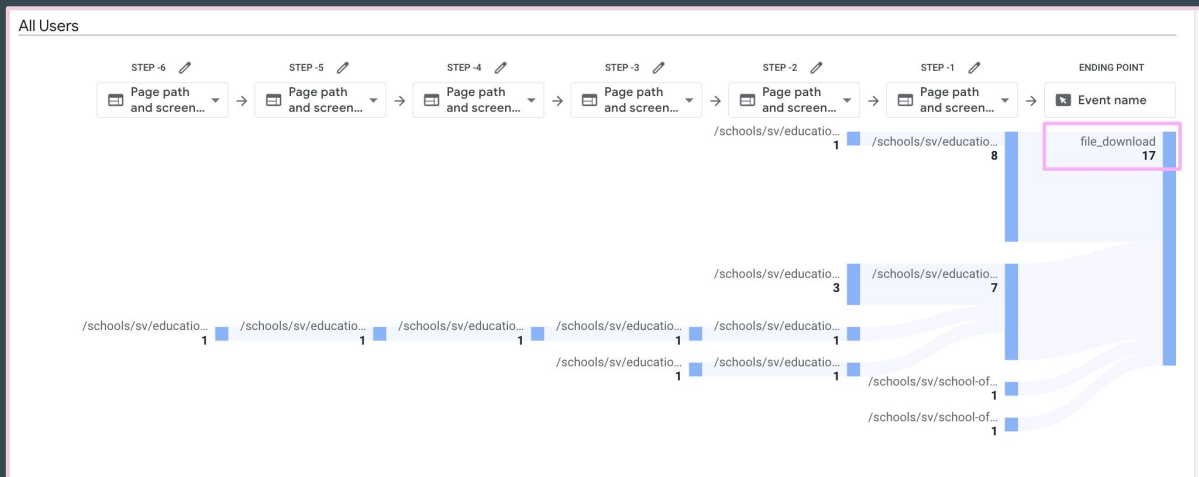
BREAKDOWN
Drop or select dimension

VALUES
Event count



Path Exploration Report — Example

We can explore from which pages users are coming to download the file.





Here is what you need to remember

- Explorations reports are shared only in Read-mode
 - To change data in reports (you have not created) first make a copy of it
- Possibility to create unlimited number of Exploration reports
- Use pre-build templates or create reports from 'Blank'
- If there is no data in the report after you added new dimensions or metrics, try to change data range or metrics/dimensions. Not all metrics/dimension can be combined (!)
- You can download the report in CSV, Pdf or export to Google Sheets

Thank you

Happy learning!

[Irina](#) & [Isaline](#)
