Google Analytics 4 (GA4) Glossary

November 2025

A comprehensive reference guide for marketing, communications and fundraising professionals. We have separated our guide into 'Essential', 'Intermediate' and 'Advanced' terms, to help you build your understanding, based on your current knowledge level. Also, we have grouped our terms under the topics they relate to.

Use the Index below to quickly find a specific term you want to understand more about or simply browse the list.

Index

Core GA4 Terms (Essential)

Data Collection & Setup

Account
The top-level container in Google Analytics where all your data is stored. It is your main folder that you access with your login details. Most organisations have one account for their website, but separate, unrelated websites should use different accounts.

Property
A property sits within your account and represents your website or app. A GA4 property can collect data from multiple sources (website, iOS app, Android app) into one unified set of reports.

Data Stream
A data stream collects information from a specific source (website, iOS app, or Android app) into your GA4 property. Each data stream has its own unique Measurement ID and can be configured independently.

Measurement ID
A unique identifier (starting with "G-" followed by numbers and letters, e.g., G-ABC12DEF34) that ensures data is sent to the correct GA4 property. Each data stream has its own Measurement ID.

Google Tag (gtag.js)
The standalone tracking code that collects data from your website and sends it to Google Analytics. Previously called the "Global Site Tag," it can be added directly to your website's code, though many prefer using Google Tag Manager for easier management.

Google Tag Manager
A free tool that helps you manage tracking codes on your website without needing to modify the website's code directly. It allows you to test tags before going live and reduces dependence on IT teams for tracking changes.

Enhanced Measurement
A GA4 feature that automatically tracks common website interactions without additional code changes. This includes page views, scrolling, outbound link clicks, site searches, video engagement, file downloads, and form interactions.

Consent Mode
A feature that adjusts how Google's tracking behaves based on users' cookie consent choices. When someone accepts or declines cookies on your website,

Consent Mode ensures data collection complies with their preferences whilst still providing useful insights through modelled data.

Cookie
A small piece of data stored in a user's web browser that helps Google Analytics identify returning visitors and track their sessions. If someone doesn't have an existing cookie, they'll appear as a new user in your reports.

Users & Sessions

User
An individual person who engages with your website or app. One user can visit your website multiple times, creating multiple sessions. By default, users are identified by a unique ID stored in their browser cookie.

Active Users
The primary metric showing how many people have visited your website or app during a specific time period. To be considered "active," a user must have an engaged session or be reported as a new user.

New User
Someone visiting your website for the first time within the selected date range. Note that users who clear their cookies or visit from a different device will be counted as "new" again.

Total Users
The total count of unique users who visited your website during the selected time period. Also known as "unique users."

Session
A single visit to your website, which can include multiple page views, events, and interactions. A session begins when someone arrives on your website and ends after 30 minutes of inactivity or at midnight.

Session Start
The automatic event that GA4 records when a new session begins. This happens when someone first engages with your website or app.

Session ID
A unique identifier assigned to each session, automatically sent to GA4 with every event. This helps group all activities from a single visit together.

Client ID
A randomly generated unique identifier that Google Analytics uses to recognise individual users across sessions. It's stored in a browser cookie on the user's device.

User ID
An optional identifier that you can set to track known users across different devices and sessions. This is useful when users log into your website, allowing you to see their complete journey across devices.

Device ID
The unique identifier used to track individual users. For websites, this is the Client ID; for mobile apps, it's the app installation identifier.

Events & Engagement

Event
In GA4, all data is collected as events. This includes page views, clicks, purchases, form submissions, and any other interaction you want to track. Events can be automatic (collected by default), recommended (suggested by Google), or custom (created by you).

Event Parameter
Additional information collected with an event. Parameters can include automatic data (like page title, URL, session ID) or custom information you choose to track (like product categories, user types, etc.).

Key Event (Conversion)
Important actions that you define as valuable to your organisation, such as purchases, sign-ups, downloads, or contact form submissions. Previously called "conversions" in Universal Analytics.

Event Count
The total number of events recorded by Google Analytics during the selected time period.

Event Count per User
The average number of events recorded per user, calculated by dividing total events by the number of users.

Events per Session
The average number of events recorded per session, calculated by dividing total events by the number of sessions.

Page View
An event recorded each time someone views a page on your website. Pages are typically ranked by popularity based on page views in GA4 reports.

Engaged Sessions
Sessions that last longer than 10 seconds, include a conversion event, or have two or

more page views. This metric helps identify meaningful visits rather than brief, accidental visits.

Engagement Rate
The percentage of sessions that were "engaged," calculated by dividing engaged sessions by total sessions. For example, if 70 out of 100 sessions were engaged, the engagement rate would be 70%.

Average Engagement Time
The average amount of time users spend actively viewing your content, calculated by dividing total engagement time by number of users. Time is only counted when the browser tab is visible and active.

Average Engagement Time per Session
Similar to average engagement time, but calculated per session rather than per user, showing the average time spent during each visit.

User Engagement
A measure of how long people actively view your content. GA4 only counts time when the page or screen is visible (not when tabs are hidden or minimised).

Bounce Rate
The percentage of sessions that were not "engaged" - meaning they lasted less than 10 seconds, had no conversions, and included only one page view. In GA4, this is essentially the opposite of engagement rate, which is the prominent metric used.It is hidden from being displayed, unless you manually add it in custom report.

Traffic Sources & Campaigns

Source
Where your website traffic comes from - for example, "google" for Google search results, "facebook" for Facebook, or "newsletter" for your email campaigns.

Medium
How the traffic reached your website - for example, "organic" for free search results, "cpc" for paid ads, "email" for email campaigns, or "social" for social media posts.

Campaign Name
A label you assign to marketing campaigns to track their performance. This could be something like "summer-sale-2024" or "new-product-launch."

Channel
Broad categories that group similar traffic sources together, such as "Organic Search," "Paid Search," "Social," "Email," or "Direct." These help you understand your overall marketing performance.

Default Channel Group
GA4's automatic classification system that combines source and medium information into standard marketing channels like "Organic Search," "Paid Search," "Email," "Organic Social," and "Paid Social."

UTM Tag
Specific tracking parameters added to URLs (utm_source, utm_medium, utm_campaign, etc.) that help you track the performance of specific marketing campaigns. UTM stands for "Urchin Traffic Monitor." When creating UTM tags, you should always use lower case text and keep naming consistent. This will help with reporting on them.

Campaign Tags
Additional tracking information added to URLs to help identify and measure marketing campaigns. These tags appear as parameters at the end of URLs and feed into your acquisition reports.

Direct
Traffic from users who typed your website address directly into their browser, used a bookmark, or clicked a link without tracking parameters. GA4 only assigns "direct" when it cannot identify another source.

Organic
Free, non-paid traffic to your website, such as clicks from unpaid search results, social media posts, or other websites that link to you naturally.

Referral
Traffic that comes from people clicking links on other websites to reach your site.

Search Query
The actual words or phrases someone typed into a search engine before clicking through to your website from either paid ads or organic search results.

CPC (Cost-Per-Click)
Traffic that comes from paid advertising where you pay for each click. This appears in reports when the medium is set to "cpc" or "paid."

Metrics & Dimensions

Metric
Numerical data in your reports, such as numbers, percentages, or ratios. Examples include page views, users, session duration, and conversion rates. Metrics typically appear as columns in reports.

Dimension
Descriptive attributes of your data that provide context to metrics. Examples include

page titles, traffic sources, device types, and geographic locations. Dimensions typically appear as rows in reports.

Custom Dimension
Additional descriptive information you can collect and analyse beyond GA4's default dimensions. For example, you might track content authors, membership types, or product categories.

Custom Metric
Additional numerical data you can collect beyond GA4's default metrics. For example, you might track video watch time, product ratings, or custom engagement scores.

Custom Definitions
he process of registering custom dimensions and metrics in GA4 so they can be used in reports. Custom data must be registered before it appears in your reporting interface.

Important GA4 Terms (Intermediate)

Attribution & Analysis

Attribution
How credit for conversions is assigned to the different marketing touchpoints that led to the action. GA4 uses data-driven attribution by default, which uses machine learning to assign credit more accurately than simple rules-based models.

Lookback Window
The amount of historical data considered when attributing credit to marketing touchpoints. For example, a 30-day lookback window includes all relevant interactions up to 30 days before a conversion occurred.

First User Source
Where a user first discovered your website. This dimension shows the original source for new users, helping you understand which channels are best at attracting first-time visitors.

First User Medium
How the message was originally communicated when a user first found your website. This complements First User Source to show the complete picture of initial discovery.

Acquisition
Reports and data that show how people discover and arrive at your website. This includes information about traffic sources, mediums, campaigns, and channels.

Landing Page
The first page someone views during a session. Analysing landing pages helps you understand which content attracts visitors and identify opportunities to improve user experience.

Advanced Features

Audience
Custom groups of users you create based on specific criteria (demographics, behaviour, technology, etc.) for analysis or targeting in linked Google Ads accounts. Audiences can be simple or complex combinations of conditions.

Segment
A way to focus analysis on specific subsets of your data based on users, sessions, or events. You can apply up to four segments to exploration reports to compare different groups.

Comparison
A feature in standard reports that lets you compare different user groups side by side, such as comparing all users to users from a specific traffic source.

Google Signals
An opt-in feature that enables demographic reporting and audience creation for Google Ads. It provides additional insights about user interests and demographics whilst maintaining privacy.

Enhanced Conversions
A feature that uses first-party customer data (like email addresses) to improve conversion tracking accuracy, especially when cookies are blocked or unavailable.

Predictive Metrics
Machine learning-powered forecasts about user behaviour, including predicted revenue and predicted churn probability. These are only available for properties with sufficient data.

Advertising Features
Settings that enable demographic and interest reporting, and audience creation for advertising. This feature uses Google's advertising cookies and is automatically enabled when you turn on Google Signals.

Demographics
User information such as age and gender that can be included in reports when Google Signals is enabled. This helps you understand your audience composition whilst maintaining privacy.

Reporting

Exploration Reports
Customisable reports that go beyond the standard GA4 interface, offering advanced analysis options including funnels, path analysis, cohort analysis, and custom data combinations.

DebugView
A real-time debugging report that shows events as they're sent to GA4, useful for testing and troubleshooting tracking implementation. Events shown in DebugView don't appear in other reports.

Library
A feature that allows you to customise the standard GA4 reports and navigation menu, including editing existing reports and creating new ones (requires Editor or Administrator access).

Sampling
When GA4 uses a portion of your data to generate reports more quickly. This typically occurs in exploration reports when querying more than 10 million events. Reducing your date range can help minimise sampling.

Data Retention
Settings that control how long user-level and event-level data is stored in GA4. The default is 2 months, but this can be extended to 14 months. After this period, personally identifiable data is deleted, though aggregated data remains available.

Annotations
Notes you can add to reports to provide context about specific dates or periods, such as campaign launches, website changes, or external events that might affect your data.

Change History
A record of modifications made to your GA4 account and properties, including who made changes and when. This is useful for tracking configuration changes and troubleshooting issues.

Views
The total number of app screens or web pages that were viewed. This includes repeat views of the same page during a session.

Views per User
The average number of pages or screens viewed per user, calculated by dividing total views by the number of users.

E-commerce (if applicable)

E-commerce Purchase
A transaction event that occurs when GA4 records a completed purchase. E-commerce tracking provides detailed information about revenue, products sold, and customer purchasing behaviour.

Lifetime Value (LTV)
Metrics that show the total value generated by users over time, rather than just during individual sessions. This includes metrics like total lifetime revenue and lifetime average revenue per user.

Privacy & Compliance

PII (Personally Identifiable Information)
Personal data such as names, email addresses, or phone numbers. Google Analytics terms of service prohibit sending PII directly to GA4, though you can use hashed identifiers that link to personal data in your own systems.

Consent Signals
Information about a user's cookie consent status that's communicated to Google Analytics and other Google services. These signals help determine what data can be collected and used.

User-Provided Data
Information collected directly from users (like email addresses or names) that you can send to Google Analytics to improve reporting and advertising personalisation, typically through Enhanced Conversions.

Default Reporting Identity
Settings that control how GA4 identifies unique users in reports. Options include using User ID + Device ID + modelled data, User ID + Device ID only, or Device ID only.

Reporting Identity
See Default Reporting Identity - the method GA4 uses to identify and count unique users across sessions and devices.

Specialised GA4 Terms (Advanced)

Technical

Measurement Protocol
A method for sending data directly to GA4 from any internet-connected device without using the standard tracking code. Useful for tracking offline events, point-of-sale systems, or server-side interactions.

Connected Site Tags
A feature that allows you to link multiple GA4 properties to a single Google Tag installation, enabling data to flow to multiple properties without changing your website code.

Data Import
The ability to upload additional data to GA4 from external sources, such as cost data from non-Google advertising platforms, product information, or offline conversion data.

Regular Expression (Regex)
An advanced pattern-matching technique used in filters, segments, and audience definitions to match text strings. For example, you might use regex to group URLs with similar patterns.

Behavioural Modelling
Machine learning techniques that GA4 uses to estimate missing data when users decline cookies. This helps maintain reporting accuracy whilst respecting user privacy choices.

Parameter
See Event Parameter - additional pieces of information collected with events, either automatically by GA4 or custom data you choose to send.

Analysis

Cohorts
Groups of users organised by shared characteristics or experiences, such as when they first visited your site or completed a specific action. Cohort analysis helps you understand user behaviour patterns over time.

User Retention
The percentage of users who return to your website after their initial visit. For example, if 100 new users visited yesterday and 25 returned today, your 1-day retention rate would be 25%.

Benchmarking
Comparison of your website's performance against aggregated data from similar websites. GA4 provides benchmark metrics like engagement rate and conversion rates to help you understand your relative performance.

Intelligence
GA4's machine learning feature that automatically identifies significant changes and trends in your data, such as traffic spikes or unusual user behaviour patterns.

Threshold
A privacy protection feature where GA4 may withhold data from reports when there's a risk of identifying individual users. You can often reduce thresholding by selecting larger date ranges or broader data segments.

Data Quality

Not Provided
Appears in reports when certain information isn't available, most commonly for organic search terms that search engines don't pass to your website for privacy reasons.

Not Set
Indicates that GA4 couldn't determine a particular piece of information. For example, "not set" in location reports means GA4 couldn't identify the user's geographic location.

Integration

Google Ads
Google's advertising platform. When linked to GA4, you can import conversion data, create audiences for targeting, and see detailed performance data for your paid campaigns.

Looker Studio
Google's free data visualisation tool (previously called Google Data Studio) that connects to GA4 to create custom dashboards and reports with advanced formatting and multiple data sources.

URL Builder
Google's free tool for creating campaign-tagged URLs. It provides a user-friendly interface for adding UTM parameters to your marketing links without manually typing the tracking codes.

Older/Legacy Terms (you may hear or read these)

Universal Analytics
The previous version of Google Analytics that stopped collecting data in July 2023. Understanding this term helps when discussing historical data or migration topics.

Google Optimise
Google's now-discontinued website testing and personalisation platform that was shut down in September 2023. Mentioned here as you may encounter references to it in older documentation.

Google Data Studio
The former name of Looker Studio, Google's data visualisation tool. The name changed in 2022, but you may still see references to the old name.

WE ARE

EXPLORE OUR SERVICES

arkyard.com