

iab.



Anatomy of Reach in Video Advertising

OCTOBER 2025



Introduction

In the ever-evolving landscape of video advertising, one metric remains foundational yet deceptively complex: **Reach**. As platforms proliferate, devices multiply, and privacy regulations tighten, the ability to measure the unique individuals exposed to an ad campaign has become both more important and more elusive. In many ways, reach serves as the connective tissue between planning and performance, answering the fundamental question: *Who did we actually reach?*

This paper is part of [IAB's Video Advertising Anatomy series](#)—a broader initiative to improve clarity and consistency in cross-platform video measurement. It serves as a companion to [Anatomy of a Video Impression](#) and [Anatomy of Outcomes for Video Advertising](#). While the Impression paper focuses on how exposures are defined and validated, and the Outcomes paper explores how outcomes are measured and linked to campaign performance, this installment focuses on Reach—how it's defined, how it's deduplicated, and what it takes to accurately count audiences across fragmented environments.

Marketers today are tasked not only with delivering impressions but ensuring those impressions represent *real people*—not inflated counts, bot activity, or duplicated views across screens. Whether a campaign runs across streaming, social, web, or linear TV, accurately estimating unique audience exposure across those environments is central to brand effectiveness, media planning, and attribution modeling.

Yet reach is often misunderstood or oversimplified. It is not merely a byproduct of impressions; rather, it provides the number of persons or households behind those impressions. But that is not necessarily indicative of the total reachable universe size or quality of the audience. This makes it an essential counterpart to impressions: while impressions count every ad delivered — including multiple ads by the same person — reach tells you how many different people were served the message at least once. That distinction reveals whether a campaign's impact comes from wide audience coverage or heavy repetition among a smaller group. Without reach, calculating frequency becomes guesswork, since average frequency is derived from:

$$\text{Total Impressions} \div \text{Reach}$$

This paper explores the anatomy of reach: what it is, how it's measured, and the challenges in standardizing it across an increasingly fragmented video ecosystem. While frequency is a critical companion metric—especially for managing ad fatigue and optimizing media mix—this report focuses primarily on reach as the core building block of audience measurement.



Executive Summary

Reach is one of the most critical—and most misunderstood—metrics in video advertising. While impressions measure volume, reach defines scale and distinct audience penetration—making it central to evaluating campaign effectiveness.

Standard definitions for reach have been established by organizations like IAB and MRC. However, there are only a few organizations that have been [accredited](#) for these standards. The industry continues to struggle with inconsistency, lack of adoption and limited transparency. The [MRC's Cross-Media Measurement Standard – Phase I: Video](#) further reinforces baseline requirements for measuring deduplicated video reach across digital and linear environments. While focused primarily on exposure, its principles support the standardization of identity resolution, time attribution, and platform-agnostic reporting—critical building blocks for valid reach measurement.

While some measurement providers undergo MRC accreditation and follow standardized, transparent methodologies, many others rely on proprietary approaches without disclosure—resulting in non-comparable metrics that can undermine trust and complicate cross-platform measurement. Marketers and media companies should evaluate each provider's methodology, level of transparency, and accreditation status to ensure alignment with their measurement goals and standards.

Most often, the challenge is technological as it is methodological.

- Some devices reflect individual users (e.g., smartphones), while others are often used by several people (e.g., CTV) or a single person using multiple devices.
- Identity signals vary—ranging from deterministic logins to probabilistic device graphs—with differing levels of accuracy and persistence.
- Privacy regulations and closed ecosystems limit the ability to connect exposures across environments or verify person-level presence.

Even when data is available, the ability to measure reach consistently across platforms and channels remains elusive. While some providers follow standardized, accredited methodologies, many others may not. In the absence of unified identity frameworks, harmonized measurement inputs, and broad adherence to transparent practices, deduplicated reach reporting often reflects the unique capabilities and assumptions of each provider, making cross-platform comparisons difficult.

Solving cross-platform measurement challenges requires industry-wide standards and collaborative solutions. IAB Tech Lab is developing frameworks such as the Open Measurement SDK for consistent verification, the Ad Creative ID Framework (ACIF) for standardized creative tracking, and Conversions API (CAPI) for privacy-safe data sharing. The ANA's Aquila initiative complements this work, aiming to deliver privacy-first, deduplicated reach and frequency across platforms through unified identity models and partnerships. Together, these efforts help align data, reconcile identity signals, and improve the comparability of measurement across today's fragmented ecosystem.



While data clean rooms, identity graphs, and panels offer incremental improvements, there is no widely adopted, fully interoperable solution for cross-channel reach measurement today.

To move forward, the industry must prioritize:

- Adoption of standardized definitions and methodologies,
- Transparent documentation of measurement assumptions,
- Accreditation or independent validation of measurement systems, and
- Cross-channel comparability and consistency in reporting.

Until these practices are broadly implemented, reach will remain a foundational metric in theory—but a fragmented, often inconsistent one in practice.



1. Defining and Measuring Reach

For the purpose of digital audience-based and cross-platform measurement, according to [MRC Digital Audience-Based Measurement Standards](#), reach represents unique users, unduplicated homes or audiences who have been exposed to ads (have generated a Viewable impression) at least once during a time period (daypart, program or any piece of content) expressed as a percentage of the measured population, universe, or target. Emphasis is placed on **uniqueness**—each individual or household is counted only once, regardless of how often or across how many advertisements they were exposed to.

To ensure valid and consistent reach measurement across media and platforms, the following elements must be applied:

- Presence of a human user (not inferred solely by server activity).
- Proper identification and deduplication across platforms.
- Filtering for General Invalid Traffic (GIVT) and Sophisticated Invalid Traffic (SIVT).
- Transparent documentation of identity resolution and co-viewing assumptions.
- Application of viewability requirements where applicable (e.g., minimum pixel percentage and duration thresholds consistent with MRC standards).

Reach is a foundational metric for both media planning and performance measurement. However, how it is measured varies significantly depending on the platform, device, data availability, and method of identification—especially as users consume content across multiple devices, often anonymously.

COMMON MEASUREMENT FOUNDATIONS

The [IAB/MRC Audience Reach Measurement Guidelines](#) recognize that measuring and deduplicating unique users requires combining multiple data signals and techniques. These foundational signals fall into two broad categories:

Machine-Based Measures

These technical identifiers reflect devices, browsers, or cookies—not people—but are often used as a starting point for estimating reach. By themselves, they are not accurate representations of unique users, but they can be adjusted or enhanced to support deduplication across platforms and environments.

- **Unique Cookies:** The number of distinct cookie identifiers. Cookie-based counts can be inflated due to cookie deletion, multi-device usage, and short-lived or non-persistent IDs. Additionally, if a user accesses content through multiple browsers—even on the same device—each browser typically sets a separate cookie. As a result, raw cookie counts do not reliably represent unique users without adjustment.



- **Unique Browser:** A count of distinct browsers, typically identified using user agent signals such as browser type, version, and operating system—often supplemented by cookies. This helps approximate the number of unique browsing environments but may still be inflated due to shared devices or browser settings.
- **Unique Device:** The number of distinct physical devices (e.g., desktops, smartphones, tablets), often determined using device IDs (in mobile apps) or a combination of IP address, user agent, and other signals (in browser environments). While more consolidated than cookie or browser counts, this still does not represent users, especially in shared-device contexts like households.

People-Based Measures

To move from device-level signals to accurate person-level reach estimates, additional data and methodologies are required. These methods aim to resolve multiple signals into deduplicated user counts:

- **Unique Users / Unique Visitors:** An estimate of individual people exposed to content or ads. This typically involves enhancing machine-based identifiers with person-level signals—such as login credentials, registration data, or identity graphs—and may incorporate panel data or census-modeling techniques. Reliable estimates require grounding in real individuals and clearly disclosed methodologies, rather than relying solely on probabilistic modeling.

Important: Regardless of method, any reach metric should clearly disclose the underlying identification strategy. Using “Unique Users” implies person-level measurement, while cookie/device counts reflect machine-level approximations.

Types of Reach

Understanding reach requires distinguishing between different types, each serving a specific strategic or operational purpose. At the core are two primary concepts:

- **Gross (aka Raw Reach)**
The **total number of unique identifiers but not necessarily measuring persons. This could be counting identifiers** by media channels, platforms, devices, and/or environments (e.g., browsers, apps) — **which means that “users” are not deduplicated.**

An individual exposed to the same ad on mobile, desktop, and CTV would be counted three times.

- **Net Reach (also referred to as Reach or Unique Reach)**
The **number of distinct devices, cookies, browsers, individuals, or households** reached at least once during a campaign.

Net Reach is often assumed to represent person-level or household level counts. Providers should **clearly disclose the basis of measurement**, using one of the following classifications:

- **Person-Level Reach**

The number of unique individuals reached.

Most relevant for campaigns targeting individuals. Requires validated identity resolution (e.g., logins, deterministic IDs, or panel data).



- **Household-Level Reach**

The number of unique residential households reached.

Does not distinguish how many individuals in the household were exposed.

- **Device-Level Reach**

The number of unique devices reached (e.g., smartphones, tablets, desktops).

May overcount individuals who use multiple devices unless deduplicated.

- **Browser-Level Reach**

The number of unique browsers used to access content

May overcount individuals who use multiple browsers unless deduplicated.

- **Cookie-Level Reach**

The number of unique cookie IDs.

Least stable due to deletion, short lifespans, and duplication across browsers/devices.

Measurement / Reporting platforms and/or companies should disclose if they are using a combination of any of the above methods to calculate Net Reach.

In addition to standard reach classifications, marketers often rely on **complementary reach metrics** to better understand campaign performance—especially when evaluating media effectiveness, optimizing channel mix, or assessing message delivery depth.

- **Additional Reach Metrics**

- **Viewable Reach**

Reach based only on **viewable impressions**—those that meet defined criteria (e.g., 50% of pixels in view for ≥1 second).

- **Incremental Reach**

The **additional unique users** reached by introducing a new channel or platform.

Key for understanding how each tactic contributes to the overall campaign scale.

- **Effective Reach**

The number of unique users reached at least a **minimum number of times** (effective frequency).

Used to assess the depth of message exposure and potential impact.

Important Considerations

While defining types of reach is essential, interpreting reach in isolation can be misleading. To truly evaluate campaign performance, reach must be viewed in the context of additional factors—such as scale, frequency, duplication, and audience relevance—that influence both accuracy and impact.

- **Projected Reach**

When based on panel or sample-based data, reach must be **projected to the full population (the “universe”)**, accounting for sampling error and representation bias.

Leading measurement providers typically use **weighted, validated panels** combined with **calibration techniques** to minimize these biases and improve the accuracy of projections.



- **Interpretation Context**

Reach should always be interpreted alongside:

- **Frequency** – how often individuals were reached
- **Duplication** – how much overlap exists across platforms
- **Audience Quality** – the relevance and engagement level of the audience

MEASURING REACH ACROSS MAJOR VIDEO ENVIRONMENTS

Digital Video

In web-based and in-app environments, digital video reach is typically measured using device-based or browser-based identifiers such as cookies, device IDs, or local storage. When available, login credentials further enhance user identification. Publishers and third-party vendors track ad delivery and attempt to deduplicate exposures at the user or device level.

Key considerations:

- Measurement typically occurs at the campaign level across placements and creatives.
- Identification relies on client-side telemetry (JavaScript tags, SDKs, pixels).
- Privacy restrictions (e.g., cookie deprecation, AppTrackingTransparency) challenge cross-device deduplication.
- Probabilistic methods, modeled identity graphs, and clean room environments are increasingly used to supplement direct user observation.

Social Video

Social platforms such as Meta, TikTok, and YouTube measure reach using deterministic, login-based identifiers within their closed ecosystems. These platforms are well-positioned to deduplicate reach across devices and sessions—at least within their own walls.

Key considerations:

- Reach is generally deduplicated at the user level using a combination of login credentials and device IDs.
- Cross-device deduplication depends on whether users remain logged in consistently across environments and whether platforms support device stitching.
- Measurement can be affected by privacy settings (e.g., iOS tracking restrictions), app permissions, and session-based variability.
- Adherence to MRC-aligned viewability thresholds may differ by provider.
- Transparency into methodology—such as how co-viewing is treated or invalid traffic is filtered, account sharing, etc. —is limited and often dictated by platform disclosure policies.



Connected TV (CTV)

In CTV environments, reach is often measured at the household or device level due to shared screen usage and limited individual-level identifiers. However, the methods, assumptions, and levels of deduplication vary widely by provider and data source.

Key considerations:

- Some providers report household-level reach, reflecting the “lean-back” viewing experience often shared by multiple individuals in a single household.
- Others attempt to estimate person-level reach using panels, login data, or co-viewing models informed by behavioral cues such as content type and time of day.
- Reach measurement should be clearly labeled to indicate whether it reflects households, devices, or individuals—and should be accompanied by transparent disclosure of the assumptions, duplication logic, and identity signals used.
- Measurement inputs may include deterministic device identifiers (e.g., Roku ID, Fire TV ID), IP addresses, app-specific IDs, or login data—though availability and standardization vary, and some identifiers are proprietary.
- In the absence of user-level signals, co-viewing models are applied to estimate individual reach, typically relying on panel calibration and contextual data.
- While many accredited providers implement TV-off detection and continuous play validation, not all CTV platforms do—which can lead to inflated reach if ads are served during autoplay or inactive sessions.
- Some solutions report impression-level data tied to identifiers (e.g., household ID), enabling more granular frequency and overlap analysis. Others rely on modeled or projected reach estimates based on aggregated data.

As CTV measurement continues to evolve, clarity around co-viewing estimates, deduplication logic, and exposure validation will be critical for ensuring that reach is interpreted accurately and remains actionable across media plans.

Linear TV

Reach measurement in linear TV is derived from either directly observed panel data (e.g., people meters) or large-scale device-based sources like set-top boxes (STB) or ACR data. These two sources are often combined for enhanced granularity and scale.



Linear TV

Reach measurement in linear TV is derived from either directly observed panel data (e.g., people meters) or large-scale device-based sources like set-top boxes (STB) or ACR data. These two sources are often combined for enhanced granularity and scale.

Key considerations:

- Panel-based systems (e.g., those using people meters) infer person-level exposure based on self-reported inputs (e.g., button presses) and observed tuning behavior. These inputs are then projected to the total population using statistical weights.
- Device-based data (e.g., from set-top boxes or ACR-enabled TVs) is commonly used in large-scale (“big data”) measurement approaches. These data often require modeling and calibration to account for co-viewing, demographic assignment, and attribution from household to person level. In addition, household-level reach must consider all TVs in the home, including those not instrumented with STB or ACR, to avoid underestimating total exposure.
- Co-viewing estimation is essential when using household-level data and is typically informed by calibration panels or statistical inference.
- Time-shifted and delayed linear TV viewing introduces complexities in determining unduplicated reach, as exposures may occur outside the initial airing window and may be reported differently depending on the provider.
- Some linear TV measurement providers report ad impressions—not just Average Commercial Minute (ACM) data—allowing for more granular reach attribution when available.



VARYING REACH CHALLENGES ACROSS CHANNELS

As with all environments, transparency around data sources, projection methodology, and co-viewing adjustments is critical to interpreting linear TV reach metrics in context and comparing them with other video channels.

MEDIA TYPE	UNIT OF MEASUREMENT	COMMON METHODOLOGIES	PRIMARY CHALLENGES
Digital Video	User, Device	Cookies, SDKs, deterministic/probabilistic IDs	Identifier instability, cross-device deduplication gaps, shared devices
Social Platforms	Logged-in User	Platform login data, internal ID graphs	Platform-contained measurement, limited external visibility
Connected TV	Household, Device	Device IDs, app-specific IDs, co-viewing models	Household-level defaults, limited person-level attribution, Combination of measurements by channel (FAST vs. CTV); co-viewing models
Linear TV	Household, Person	Panel data, STB/ACR data with projection	Sample-based projections, time-shifted viewing, modeled co-viewing

Understanding each environment's nuances is critical when planning cross-platform video campaigns. The lack of standardized reach methodologies, accreditation, or transparency across platforms can lead to inconsistencies in reported campaign performance. Alignment on measurement definitions, filtration practices, and deduplication methods is essential for comparable and actionable metrics.



2. What It Takes to Count Audiences

Measuring deduplicated video reach isn't as simple as tallying cookies, browsers, or devices. It requires a multi-step process with layers of validation, identity resolution, and platform-specific nuance. Each stage has its own dependencies—and potential pitfalls—that can impact accuracy. Below is a breakdown of the essential stages typically involved in measuring reach, each playing a critical role in turning raw exposures into a true count of unique audiences.

STAGES AND EVENTS IN MEASURING REACH

STAGE	DEFINITION AND RELEVANCE
Valid Ad Impression Event	Exposure rendered and filtered for invalid traffic; only valid impressions contribute to reach.
Exposure Validation (including Viewability Requirements)	Verifying that impressions meet required viewability thresholds (e.g., minimum pixel percentage and duration based on MRC standards) and occurred on active screens with continuous content playback (e.g., TV-on, no stalled sessions), ensuring only meaningful exposures are included.
User or Household Identification	Mapping impressions to persistent identifiers (user ID, device ID, household ID, modeled ID).
Deduplication of Users or Households	Aggregating multiple exposures from the same entity into a unique audience count.
Co-Viewing Adjustment (if applicable)	Accounting for multiple viewers on shared devices, using models or observation.
Time-Window Attribution	Assigning exposures to a defined reporting period (daily, weekly, campaign-to-date).
Final Audience Reporting	Summarizing deduplicated reach at person or household level for evaluation and analysis.

While each step is critical, the true complexity surfaces when reach is measured across multiple platforms and channels. Most platforms can deduplicate reach within their own ecosystem using proprietary identifiers and methodologies. However, combining data across environments—such as CTV, social, linear TV, and web—introduces a tangle of challenges.



To construct a unified view, brands, agencies, and publishers often need to aggregate data from a variety of sources: ad servers, platform dashboards, third-party vendors, and measurement providers. Some organizations attempt to build proprietary reconciliation systems in-house. Others lean on external measurement partners to handle identity resolution, deduplication, and compliance. Either way, achieving a consistent, privacy-safe, and scalable reach metric requires meticulous coordination.

And even with robust tools and partnerships, cross-platform reach measurement becomes increasingly difficult as media consumption fragments. The underlying problems aren't just technical—they reflect the foundational messiness of the ecosystem:

- Identity fragmentation across devices and browsers.
- Shared device usage in households and communal environments.
- Inconsistent or incomplete data access across walled gardens and open web.
- Diverse viewing behaviors, especially with time-shifting and co-viewing.

In short, counting reach is not a linear math problem—it's a complex puzzle that requires transparent methodologies, aligned standards, and continual adaptation to evolving consumer behaviors and privacy expectations.



3. Challenges in Cross-Channel Reach Measurement

As video consumption stretches across web, social, CTV, and linear TV environments, consistently and accurately measuring **deduplicated reach** across channels remains one of the industry's most persistent challenges. Since each environment comes with its own data collection practices, identity signals, and measurement assumptions, making it difficult to align reporting across platforms.

IDENTITY FRAGMENTATION, SHARED DEVICES, AND ACCOUNT AMBIGUITY

Several longstanding factors make accurate user identification—and therefore deduplicated reach—difficult:

- **Same users across browsers/apps and/or devices:** A single user may generate different identifiers across browsers (e.g., Safari, Chrome) applications on the same device, or use multiple devices -- complicating deduplication.
- **Shared devices among multiple users:** Households, schools, and workplaces often share devices, making it difficult to attribute exposures to a specific individual.
- **Primary account ambiguity:** In environments like CTV or subscription-based services, multiple individuals often access content using a shared login. Even in authenticated sessions, the specific viewer may not be identifiable. While many established measurement providers apply panel-informed co-viewing models and validated assumptions to estimate viewership more accurately, these approaches still rely on probabilistic attribution and may not fully resolve ambiguity—especially in real-time or at scale.

Within video, reported reach often lacks transparency. It's not always clear:

- Whether the data is based on **viewable impressions** or all impressions,
- If reach is measured at the **household** or **individual** level,
- Or whether the reach metric represents **gross** or **net**.

To address this, platforms should align with MRC standards and clearly disclose their methodology. Advertisers, agencies, and publishers should push for transparency and request third-party **accreditation** to ensure consistency and comparability.

Future identity resolution strategies may benefit from incorporating real-time physiological, neurological, and behavioral response signals, as well as AI models, which can help differentiate between multiple users on shared devices and improve deduplication accuracy.



VARIATIONS IN DEDUPLICATION METHODOLOGY

Not all deduplication is created equal. Key differences across platforms include:

- **Scope:** Deduplication may occur only within a platform or extend across environments.
- **Measurement level:** Reach may be reported at the household level (CTV, linear) or person level.
- **Identity method:** Deterministic (login-based), probabilistic (device modeling), or hybrid identity solutions are used.
- **Event threshold:** Reach may be calculated from all impressions or limited to viewable impressions.

These differences can lead to drastically different reach numbers for the same campaign—making apples-to-apples comparisons nearly impossible without normalization.

TIME-SHIFTING AND CHANGING VIEWING BEHAVIOR

Time-shifted and on-demand viewing continues to complicate reach measurement, particularly across linear, digital, and CTV environments:

- Ads served during a campaign window may be viewed hours, days, or weeks later—especially in DVR, VOD, and digital streaming environments.
- Attribution windows vary by platform: some credit reach based on the time of ad delivery, while others rely on the time of actual viewing, which can lead to discrepancies in campaign-level reporting.
- Linear TV has long supported time-shifted measurement using established systems like meter encoding and timestamping, ACR, STB logs, and calibrated panels that project person-level co-viewing—even for delayed exposure.

In digital and CTV settings, delayed exposure also presents new challenges

- Delayed ad views beyond the campaign window may or may not be credited toward reach, depending on platform policies.
- In digital and CTV environments, however, time-shifted viewing introduces challenges around viewability validation, screen status, and cross-device continuity, especially when users resume content across apps or devices.
- Ad skipping and fast-forwarding in time-shifted environments may lead to overstated reach if platforms count served impressions without verifying actual viewing.

These inconsistencies distort reach reporting, complicate frequency planning, and can inflate or understate performance.



MANAGING CO-VIEWING AND SHARED VIEWING ENVIRONMENTS

Co-viewing adds additional complexity, particularly in CTV and linear TV environments:

- **Household-level reporting:** Default in many cases; may not account for individual viewer presence.
- **Modeled co-viewing estimates:** Lift factors derived from panels or modeled behaviors estimate the number of additional viewers.
- **Inferred viewer presence:** Some solutions use time of day, device signals, or content type to infer the number of viewers.

Transparency is key. If co-viewing adjustments are made, they should be **empirically supported**, documented, and, ideally, **independently validated**—whether through calibration panels or audits.

THE NEED FOR TRANSPARENT METHODOLOGIES

Given these challenges, it is critical that reach measurement methodologies clearly disclose:

- How users are identified and deduplicated.
- Whether co-viewing is estimated or observed.
- How invalid traffic is filtered.
- Whether household-level or person-level reach is reported.
- How time-shifted viewing is incorporated.

Accreditation from independent bodies like the MRC or third-party validation can significantly increase confidence in reported reach figures.

Until widespread adoption of consistent methodologies occurs, marketers must carefully evaluate how reach is being defined, measured, and reported—ensuring alignment with campaign goals and avoiding misinterpretation of cross-channel performance. [MRC's Cross-Media Measurement Standard – Phase I: Video](#) was developed to help address many of these challenges by establishing consistent principles for deduplicated exposure measurement across TV and digital video. While not specific to every aspect of audience reach, the framework provides critical scaffolding for how platforms should treat identity signals, co-viewing assumptions, and time-based attribution—serving as a baseline for valid cross-platform reporting.



4. Advancing Reach Measurement Through Standards, Technology, and Collaboration

Despite the complexity of cross-platform reach measurement, the industry is actively evolving through open standards, privacy-safe tools, and collaborative solutions. While no single technology or framework solves every challenge, together these advancements are helping to build a more consistent, scalable, and transparent foundation for audience measurement.

THE ROLE OF OPEN MEASUREMENT

IAB Tech Lab's [Open Measurement SDK \(OM SDK\)](#) has become foundational in establishing consistency in how exposure data is collected across digital video, in-app, and CTV environments. Although originally designed for viewability verification, its standardized telemetry can also support foundational inputs for reach modeling.

While OM SDK does not deduplicate users across platforms or devices, it plays a critical role in ensuring that exposure data — a key input to reach — is collected in a uniform and transparent way across participating environments.

DATA CLEAN ROOMS AND PRIVACY-SAFE AUDIENCE MATCHING

Data clean rooms enable privacy-compliant audience matching without sharing personal identifiers. For reach measurement, clean rooms offer:

- Deterministic or probabilistic audience matching across publishers and platforms.
- Aggregated deduplication without raw user data exposure.
- Consistent identity handling in environments with limited direct signals.

However, not all data clean rooms are created equal — success depends on match rates, underlying identity fidelity, and whether deduplication logic adheres to transparent, auditable methods. Factors such as ease of integration with multiple publishers, adherence to open standards like IAB Tech Lab's [Open Private Join & Activation \(OPJA\)](#) spec, and the ability to verify privacy claims through independent audits can make a significant difference in performance and trust. Data clean rooms that lack these qualities risk producing incomplete or biased reach metrics that undermine decision-making.

THE INCREASING ROLE OF ARTIFICIAL INTELLIGENCE IN REACH MODELING

Artificial intelligence (AI) and machine learning are increasingly used to fill gaps in observable data. When properly applied, these models can help:

- Estimate identity across devices and browsers with limited deterministic linkage.
- Infer co-viewing behavior using contextual and content signals.
- Project deduplicated reach across environments with fragmented identifiers.



That said, AI-based reach estimates must be transparently disclosed, validated against ground truth sources (e.g., panels or verified cohorts), and regularly recalibrated to avoid bias or overfitting. They also introduce new audit considerations, including validating algorithmic decisions, monitoring data drift, and evaluating whether training data is representative of the population being measured. Ultimately, AI should complement—not replace—standards-based measurement methods.

THE EMERGING ROLE OF PUBLISHER PARTICIPATION

For cross-platform reach measurement to succeed, publishers and platforms must actively contribute standardized exposure logs, metadata, and ID resolution parameters — ideally within clean rooms or privacy-safe frameworks. As publishers gain more direct relationships with users, they can become vital collaborators in deduplicating reach and informing co-viewing assumptions.

Incentivizing publisher participation — whether through shared measurement partnerships, audit certifications, or interoperability standards — will be essential for scaling accurate cross-media reach reporting.

EVOLVING TOWARD HYBRID MEASUREMENT MODELS

Many measurement providers are now embracing **hybrid approaches** — combining census-level impression data, panel-based observation, clean room matching, and probabilistic modeling to estimate reach. These models are designed to adapt to varying levels of data granularity, privacy controls, and platform participation.

When transparently disclosed, hybrid models offer flexibility without sacrificing accountability — especially as deterministic identifiers become more limited.

THE CRITICAL ROLE OF STANDARDS AND ACCREDITATION

Industry standards such as the IAB and MRC's [Digital Audience-Based Measurement Standards](#) and [Audience Reach Measurement Guidelines](#) provide essential requirements for reach measurement.

Accreditation or independent auditing reinforces confidence that reported reach metrics meet recognized quality and transparency standards. Adherence to these frameworks ensures that reach remains comparable, meaningful, and actionable across channels.



Conclusion

As video consumption continues to fragment across devices, platforms, and viewing behaviors, accurately measuring unique audience reach has become both more critical and more complex. Variability in data access, identity resolution methods, co-viewing assumptions, and time attribution practices makes it increasingly difficult to produce consistent, deduplicated reach across channel, spurring industry efforts such as the WFA's Origin initiative, the ANA's Aquila project, and emerging cross-publisher clean rooms to improve comparability and transparency.

Yet despite these challenges, meaningful progress is underway. Open technical frameworks like IAB Tech Lab's Open Measurement SDK, privacy-safe solutions such as clean rooms, and the responsible use of artificial intelligence are helping to strengthen the infrastructure for cross-platform measurement. When combined with adherence to standards and guidelines, these tools are laying the groundwork for more consistent, transparent, and scalable reach reporting.

Technology alone, however, isn't enough. Achieving comparability across platforms requires a shared commitment to methodological rigor, transparent disclosure, and independent validation. Broad adoption of accreditation frameworks, clear documentation of deduplication and identity resolution practices, and responsible treatment of co-viewing and time-shifted exposures will be essential to maintaining trust—and unlocking more effective media outcomes.

This paper, along with *Anatomy of a Video Impression* and *Anatomy of Outcomes for Video Advertising*, provides a framework for understanding three foundational components of video measurement. While impressions verify that an ad was served, reach tells us who was actually exposed—and whether those exposures reflect real, unique audiences. However, reach in itself is not an indicator of campaign success. Advertisers and platform partners should remain focused on what truly matters: driving measurable business outcomes.

By working collaboratively and committing to transparency, the industry can evolve how reach is measured to meet the realities of a cross-platform, privacy-first ecosystem—and ensure that it remains a trusted, actionable metric for driving performance, accountability, and long-term business growth.



Company Participants

<i>Alvarez & Marsal</i>	<i>Meta</i>
<i>Comscore</i>	<i>Nielsen</i>
<i>Dentsu</i>	<i>Quigley-Simpson</i>
<i>DoubleVerify</i>	<i>Spectrum Science</i>
<i>Glassview</i>	<i>The Trade Desk</i>
<i>Havas Media Network NA</i>	<i>VideoAmp</i>
<i>iSpot</i>	<i>Visit Orlando</i>
<i>LiveRamp</i>	<i>TikTok</i>
<i>Media Rating Council</i>	

Special thanks to

Chad Childress, *President, Spectrum Science Media, Spectrum Science*

Celeste Castle, *EVP, Head of Research and Measurement, dentsu*

Christine Grammier, *VP, Global Measurement Products, LiveRamp*

James G Brooks, *Founder & CEO, GlassView*

Jason Adamski, *Director, Media Center, IAB*

Jeff Ratner, *President, Media, Analytics & Data, Quigley-Simpson*

Kevin Reilly, *Senior Director, Product Management, The Trade Desk*

Kimberly Moy, *Digital Marketing Manager, Visit Orlando*

Megan Andrews, *Director, Product Marketing, Nielsen*

Michael Vinson, *Chief Research Officer, Comscore*

Ron Pinelli, *Senior Vice President, Digital Research and Standards, Media Rating Council*

Sreeharsha Ukkadam, *SVP Global Products, Nielsen*

Sriram (Ram) Padmanabhan, *Managing Partners, CSA North America, Havas Media NA*

Sonia Gupta, *Managing Director, Alvarez & Marsal*

Will Burghes, *Head of Professional Services, Rockerbox, DoubleVerify*



IAB Measurement, Addressability & Data Center Board of Directors

Alana Terry, SVP, Group Media Director, MMGY Global

Allison Barnes, Practice Leader, Analytics, Real Chemistry

Ameneh Atai, General Manager, Audience Measurement, Nielsen

Beth McKigney, SVP, Measurement & Technology Solutions, Ovative Group

Brady Gadberry, SVP - Data Products, Acxiom

Bryan Glynn, AVP, Digital Marketing & Technology, Discover The Palm Beaches

Celeste Castle, EVP, Head of Research and Measurement, dentsu inc

Chad Childress, EVP, Paid Media, Spectrum Science

Chloe Wix, Global Head of Product and Commercial Growth, Spotify

Christine Grammier, VP, Product, LiveRamp

Dan Slivjanovski, Chief Marketing Officer, DoubleVerify

Dan Taylor, Vice President, Global Ads, Google LLC

Emmy Grunseich, Vice President, Strategy & Business Operations, Yahoo

James G Brooks, Founder & CEO, GlassView

James Ollunga, SVP Advanced Analytics, Horizon Media, Horizon Media

Jamie Auslander, Senior Vice President of Measurement, Research, & Analytics, Infillion

Jay Goebel, Vice President, Data Partnerships, The Trade Desk

Jeff Ratner, President, Media, Analytics & Data, Quigley Simpson

Jon Roberts, Chief Innovation Officer, Dotdash Meredith

Jorge Ruiz, Global Head of Marketing Science, TikTok Inc.

Kathleen Campisano, Global Chief Marketing Officer, Beacon Media Group

Lily Tong, Director of Product and Engineering, Measurements, Amazon Ads, Amazon Ads

Nikhil Sharma, Senior Director, Performance & Insights, Roundel

Preeti Farooque, Global Head of Measurement, Pinterest

Ram Padmanabhan, Managing Partner, CSA North America, Havas Media Network NA

Rob Jayson, EVP, Analytics & Insights, USIM

Robert Rivenburgh, Chief Executive Officer of Publicis Commerce & Mars United Commerce, Mars United Commerce

Sally Lee, Vice President, Programmatic, Canvas Worldwide

Stephanie Martone, Global Industry Lead, Measurement, Meta

Timothy Megginson, Vice President of Digital & Data Strategy, Visit Orlando

Vidhan Srivastava, VP Product, Integral Ad Science

Wendy Emerson, Senior Vice President, Marketing Science, Butler/Till



About IAB

The Interactive Advertising Bureau empowers the media and marketing industries to thrive in the digital economy. Its membership comprises more than 700 leading media companies, brands, agencies, and the technology firms responsible for selling, delivering, and optimizing digital ad marketing campaigns. The trade group fields critical research on interactive advertising, while also educating brands, agencies, and the wider business community on the importance of digital marketing. In affiliation with the IAB Tech Lab, IAB develops technical standards and solutions. IAB is committed to professional development and elevating the knowledge, skills, expertise, and diversity of the workforce across the industry. Through the work of its public policy office in Washington, D.C., the trade association advocates for its members and promotes the value of the interactive advertising industry to legislators and policymakers. Founded in 1996, IAB is headquartered in New York City.

About IAB Measurement, Addressability and Data Center Board

IAB's Measurement, Addressability & Data (MAD) Center Board of Directors aims to provide essential industry guidance and education on solutions and changes in underlying technology and privacy regulations. The MAD Center specializes in measurement and attribution, addressability, advances in retail media, and privacy concerns, providing a comprehensive approach to digital media challenges. Board members set the agenda and direction for IAB and the industry, approve and prioritize key initiatives, influence industry best practices, receive priority access to IAB experts, research, and tools, and participate in exclusive events and meetings.

Contact Information

For questions related to the content of this guideline, please contact:

IAB Measurement Addressability & Data Center

data@iab.com

Angelina Eng

Vice President, Measurement, Addressability & Data Center, Interactive Advertising Bureau (IAB)
angelina@iab.com



APPENDIX

UNDERSTANDING HOW REACH IS MEASURED ACROSS DEVICES AND PLATFORMS

The table below outlines the common methods used to determine unique audience reach across different video environments, the primary identifiers leveraged, and the specific challenges associated with accurately attributing measuring and deduplicating reach within each context.

ENVIRONMENT	COMMON IDENTIFIERS / METHODS	KEY CHALLENGES AND LIMITATIONS
Desktop Web	Cookies, browser IDs, device fingerprintings	Identifier instability across browsers and evolving privacy restrictions
Mobile Web	Cookies, local storage, device fingerprinting	Limited cross-app and cross-device deduplication
Mobile Apps	Device IDs (e.g., IDFA, GAID), App SDKs	ID restrictions (e.g., ATT opt-outs), attribution signal loss
Connected TV (CTV)	Device IDs (e.g., Roku ID, Fire TV ID), household IP matching, platform logins	Household-level attribution by default, limited person-level data
Linear TV	Panel data (e.g., people meters), STB data, ACR data	Fragmentation of sources, and ability for samples to capture/represent reach and co-viewing
Social Platforms	Platform-specific login IDs, internal ID graphs	Walled garden limitations, inconsistent external reporting transparency
Open Web Video	Cookies, device IDs, contextual signals	Identity loss, difficulty deduplicating across publishers



CHECKLIST: KEY QUESTIONS TO UNDERSTAND HOW REACH IS MEASURED AND REPORTED

This checklist is designed to help media buyers and media owners ask the right questions to ad-serving platforms, ad tech providers, and measurement companies for clarity and transparency in how reach is defined, measured, and reported across different video channels, including web, social, CTV, and linear TV.

Reach Definition and Counting Methodology

1. How do you define and measure reach?
 - Does your definition align with IAB and/or MRC's [Digital Audience-Based Measurement Standards](#), [Audience Reach Measurement Guidelines](#) and/or [Cross-Media Measurement Standards](#)?
 - Are reach figures based on valid, human-rendered ad impressions?
2. At what stage is an impression counted toward reach?
 - Is reach based on ad delivery, ad rendering, ad viewability, or confirmed human exposure?
 - Are impressions filtered for invalid traffic before counting toward reach?
3. How do you classify different types of reach?
 - Gross Reach (non-deduplicated), Net Reach (deduplicated within the platform), and Cross-Platform Reach (deduplicated across multiple environments)?
 - Is viewable-only reach reported separately from total reach?

Identity Resolution and Audience Deduplication

1. How are users or households identified for deduplication?
 - Are deterministic methods (login-based IDs) used, or probabilistic identity models, or both?
 - Is your identity resolution methodology (deterministic, probabilistic, hybrid) fully documented and available for review?
 - Are cross-device and cross-browser deduplication methods applied?
2. Is deduplication performed across all devices and environments?
 - How do you account for the same user switching between desktop, mobile, and CTV?
 - How are shared devices or multiple browser instances treated?
3. Are reach metrics reported at the person-level or household-level?
 - If at the household level, are adjustments made to estimate co-viewing or multiple users?
 - Is this distinction clearly disclosed in reporting outputs and methodologies?

Co-Viewing and Shared Device Adjustments

1. How is co-viewing handled in reach measurement?
 - Are co-viewing adjustments applied consistently across shared device environments like CTV and linear TV?



2. What methodology is used to estimate co-viewing?
 - Is it based on direct panel observation, modeled assumptions, or content/contextual signals?
3. How are co-viewing adjustments disclosed?
 - Are person-level reach estimates transparently distinguished from household-level reporting?

Time-Window Attribution and Time-Shifted Viewing

1. How are reach exposures attributed across time windows?
 - Is attribution based on the time of ad delivery or the time of ad viewing?
 - What reporting periods are used (e.g., daily, weekly, campaign-to-date)?
2. Are time-shifted exposures included in reach reporting?
 - How are DVR playback, VOD, or delayed streaming impressions handled?
 - Are delayed exposures attributed back to the original campaign period or reported separately?

Invalid Traffic (IVT) Filtering and Data Quality

1. How is invalid traffic filtered before calculating reach?
 - Are both General Invalid Traffic (GIVT) and Sophisticated Invalid Traffic (SIVT) filtered?
 - Are auto-play impressions, background activity, or non-human exposures excluded from reach counts?
2. Has the platform's reach measurement methodology been independently audited or accredited?
 - Is MRC accreditation or third-party validation available for review?

Transparency and Methodological Disclosure

1. Are full methodologies for identity resolution, deduplication, co-viewing adjustments, and time attribution made available?
 - Are modeled estimates clearly distinguished from directly observed data?
 - Are disclosures updated when methodologies evolve due to privacy changes, platform policy shifts, or technological developments?
2. Is reach reporting accredited or independently validated?
 - If not, is the methodology aligned with recognized industry standards?

Cross-Channel Consistency

1. How is consistency maintained when measuring reach across multiple environments (web, mobile app, CTV, social, linear TV)?
 - Are standard definitions and methodologies applied across channels?
 - How do you reconcile differences between platform-reported reach and third-party or agency measurement systems?



2. How is household-level reach reconciled when combining different environments with different levels of granularity?
 - Are household reach figures adjusted when moving between CTV, linear TV, and individual device environments?
- 3 How are discrepancies between platform-reported reach and third-party or agency measurement systems handled and disclosed?

CLOSING CHECKLIST NOTES:

- ☒ Request access to detailed methodology documentation from platforms and measurement providers.
- ☒ Ensure that reports are independently audited or certified where possible.
- ☒ Verify that platforms adhere to IAB/MRC guidelines or have an internal methodology that matches industry best practices.
- ☒ Ask for clarity on all elements of reach measurement, from data collection to reporting, to avoid discrepancies and misinterpretations.



ADDITIONAL RESOURCES

The Anatomy Series is part of a broader industry effort to bring consistency and transparency to video advertising measurement. The following resources offer deeper insights, standards, and technical frameworks to support implementation and alignment across the ecosystem:

Media Rating Council: Standards & Guidelines

Many of the industry's core measurement standards—covering impressions, audience, viewability, attribution, and more. These guidelines form the foundation for trusted, auditable metrics across the media ecosystem.

[Visit the MRC website to explore the full library of measurement guidelines](#)

IAB Tech Lab: Advanced TV Standards and Guidance

The IAB Tech Lab offers detailed specifications and interoperability frameworks that power Advanced TV advertising—including dynamic ad insertion, measurement signaling, and cross-platform enablement for CTV and beyond.

[View IAB Tech Lab Advanced TV Standards](#)

IAB Video Measurement Map

A visual companion to the Anatomy Series, the IAB Video Measurement Map outlines how measurement data flows across platforms, ad tech systems, and data environments. It defines the relationships between key data sets like impressions, targeting, audience, and outcomes.

[Access the Video Measurement Map](#)