

Unified Marketing Measurement for Education

How to discover what's working, what's not and **improve performance**



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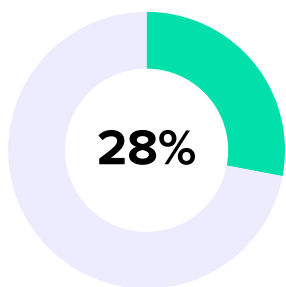
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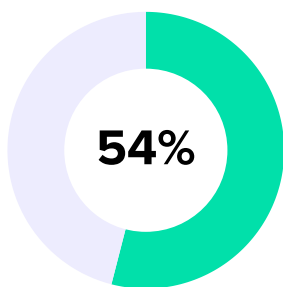
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The education sector has several marketing measurement challenges

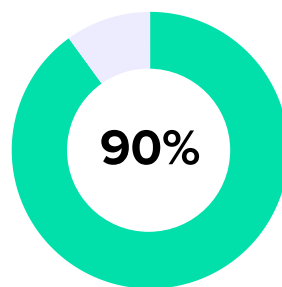
We asked our customers what their biggest marketing measurement challenges are:



of enquiries happen over the phone and most reports never see them



of education marketers cannot fully track the applicant journey



hesitate to invest in long-term or brand marketing due to poor attribution.

Applying for a place at an educational institution is a considered decision, and prospective students and applicants often take weeks or months to research options, compare institutions and decide where to apply. This creates a long, fragmented journey. A prospective applicant might download a prospectus, attend a virtual open day, get talked through options by an admissions advisor over the phone, then apply weeks later.

Tools like GA4 would file that as "Direct," and every ad platform along the way would claim the enquiry as its own. The tools most education marketers rely on weren't built for this. GA4 doesn't know about the call your admissions team took. Last-click attribution doesn't know that the open-day ad from a month ago is what started the journey. Platform-reported conversions look strong until you check them against actual enrolments and the numbers don't line up.

For education marketers specifically, that gap comes with an extra layer. A postgraduate enquiry and a short-course enquiry look identical in GA4, even though one is worth many times more to the institution. A returning student re-enrolling should be measured differently from a first-time applicant. And the channel that first inspired someone to apply, the one that actually deserved the budget, is almost always the one getting the least credit.

There's a measurement gap in education marketing. Unified marketing measurement closes it.

Education marketers are losing visibility into a large share of their enquiries, flying blind on the upper-funnel activity that builds application intent, and making budget decisions without the data to back them. This guide exists because those three problems are solvable, and unified marketing measurement is how you solve them.

Traditional measurement vs UMM for education

Overview of the measurement problems education marketers face, and what UMM does:

Without unified measurement	With unified measurement
Long consideration and application journeys Short attribution windows miss most of the journey. A prospective student who applies months after their first touchpoint goes unattributed.	✓ First-party tracking follows the full journey across sessions, channels, and weeks, not just the last click.
Offline student and agent enquiries Phone enquiries and offline admissions activity are invisible to digital attribution. Your highest-value enrolments have no marketing source.	✓ CRM and SIS integration ties offline enrolments back to the campaigns that drove them, regardless of how or where the application was made.
Student records fragmentation Many institutions rely on custom-built student information systems or fragmented CRM platforms, where enrolment data is inconsistent, incomplete, or siloed across systems.	✓ Data ingested from both industry-standard and proprietary SIS/CRM platforms via API, creating a single source of truth.
Platform duplication Both Google and Meta might claim credit for the same enquiry, inflating platform-reported performance.	✓ Deduplicated unified performance across all channels, one number that reflects reality, not one inflated figure per platform.
Upper-funnel attribution Open days, display and social drive awareness but rarely get the last touchpoint. They look like they're doing nothing, and budgets get cut accordingly.	✓ DDA + impression modelling redistributes credit to channels that influenced the journey, even when they generated no clicks.
Enrolment & withdrawals Applications, withdrawals, and enrolment confirmation often happen weeks or months apart. Short-term attribution windows miss this lag, distorting channel performance.	✓ MMM models on confirmed enrolments, adjusting for withdrawals and factoring in the lag between application and enrolment.
Course value visibility A short-course enquiry and a full postgraduate application look identical as events. You're optimising for volume, not value.	✓ Attribution connects every application to its actual value, so you can optimise for high-value programmes, not just high-volume channels.

Standard practices in education marketing measurement

John Wanamaker's quote, "Half the money I spend on advertising is wasted; the trouble is, I don't know which half," is familiar to most marketers. While this insight was first shared over a century ago, it continues to reflect a challenge that remains prevalent in the industry today.

What most marketers are doing to measure results

Marketing measurement has evolved significantly in recent years, yet many teams continue to rely on familiar and easy-to-implement methods despite them becoming more limited in terms of accuracy. The main reason is that these tools are accessible, widely used, and often integrated into the platforms marketers already depend on. Commonly used approaches include:



Half the money I spend on advertising is wasted; the trouble is, I don't know which half.

- John Wanamaker



Last-click or data-driven attribution modelling in Google Analytics 4



Ad platform reporting from Google and Meta with limited view-through data



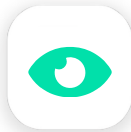
Internal siloed data that lacks integration to other tools

Challenges marketers need to overcome

Education marketers are relying on these common measurement approaches, but what challenges are they actually trying to address? At its core, the goal is to gain a clearer, more accurate picture of marketing performance beyond surface-level metrics. Key challenges include:



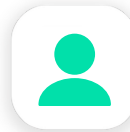
Navigating complex, multi-touchpoint journeys



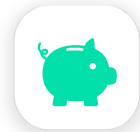
Attributing impact to clickless upper-funnel campaigns



Removing duplicate registrations for clearer unified reporting



Integrating first-party data for deeper insights & decision making



Finding areas to scale or reduce marketing spend

Two core questions

Most of the challenges and requirements faced can be summarised into two core questions that act as a directional sense check to revisit overtime:

1 What's working and what's not?

Assess all sources (online and offline), channels, the entire marketing funnel, and key campaign goals (awareness, consideration, registrations, and loyalty).

2 How do we improve?

Continuously refine budget allocation, optimise channels and campaigns, test creatives, and adjust KPIs like Cost Per Registration to enhance outcomes.

The measurement framework answers these questions by providing decision-makers with a holistic view, while offering the granular detail required for optimisation and testing decisions.

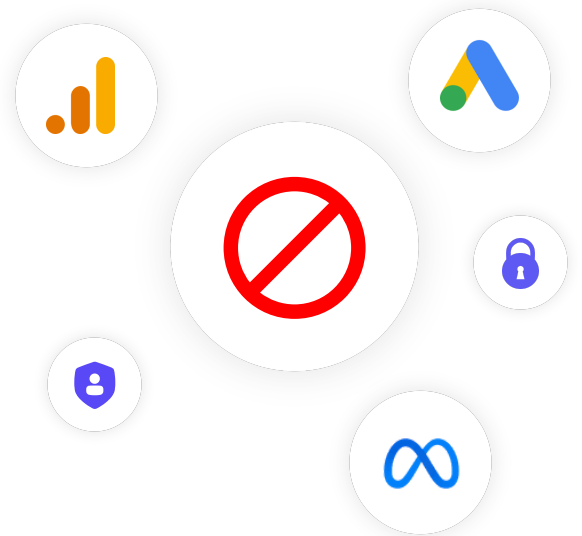
Setting the right KPIs and processes

Picking the right measurement approach also means setting the right performance KPIs based on your goals and keeping an eye on important metrics. While this may seem obvious, it's important to consider that people have been used to previous measurement approaches that are now becoming redundant which may or may not have reported their area of responsibility favorability. Therefore, it's vital to ensure the team is bought in on the approach.

The core challenges in education marketing measurement

In the introduction, we touched on how most education marketers measure performance and briefly noted that their methods often fall short when addressing common tracking and reporting challenges, but what's causing this?

Changes in data privacy regulations and technology have led to massive disruption, and these challenges are only expected to grow. Let's take a closer look at why traditional measurement methods and tools are becoming less reliable, and how evolving data privacy laws are adding to the complexity.



Third-party cookies

As data privacy laws continue to evolve, new layers of complexity are added to digital advertising. A significant shift began in 2021 with Apple's iOS 14.5 update, which introduced stricter privacy controls.

With over 80% of users opting out of tracking via the "Ask App Not to Track" feature, platforms like Meta can no longer rely on third-party cookies for view-through tracking.

This method, which allows advertisers to measure registrations from users who saw but didn't click an ad before making a purchase, has become far less effective - creating major gaps in tracking and reporting.

Beyond just measurement challenges, these changes also impact ad performance.

With fewer signals available, algorithms struggle to target the most relevant users, leading to diminished ad effectiveness.

Google Chrome is also moving in this direction, giving users the ability to opt out of third-party cookie tracking, further limiting advertisers' ability to track online behavior.

Limitations in GA4

Previously, we discussed how marketers rely on data-driven and last-click attribution models in GA4 to navigate complex, multi-touchpoint journeys and allocate credit to upper-funnel social campaigns.

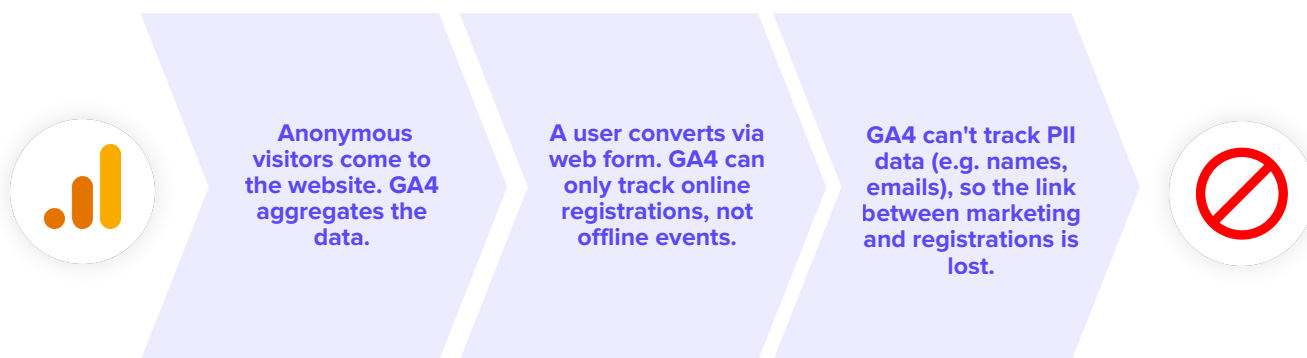
While these models have their limitations, GA4 introduces even deeper challenges beneath the surface.

Google Analytics 4 was introduced a few years ago, shifting from a user-based model to a sampled-based approach. This means reports are no longer built on individual user tracking, but instead rely on aggregated data from a smaller sample of visitors.

This had led to clients anecdotally reporting 25% difference between Universal Analytics (UA or GA3) and GA4 for the same data set and a loss of granularity around campaign performance.

The lack of first-party and user-level reporting is a major issue, particularly in education where enrolment value varies enormously. Two enrolments can look identical in GA4 but be worth completely different amounts. For example, one might be a short online course worth hundreds, while the other is a full postgraduate programme worth thousands, reported as the same event with no way to differentiate.

Traditional analytics reporting would report them both as one enrolment or key event with no way to differentiate between them. GA doesn't contain first-party data from website touchpoints, online applications, or enrolments. This means you are looking at a set of reports which has key data missing, doesn't have the level of granularity required to make effective decisions, and doesn't align to your internal data.

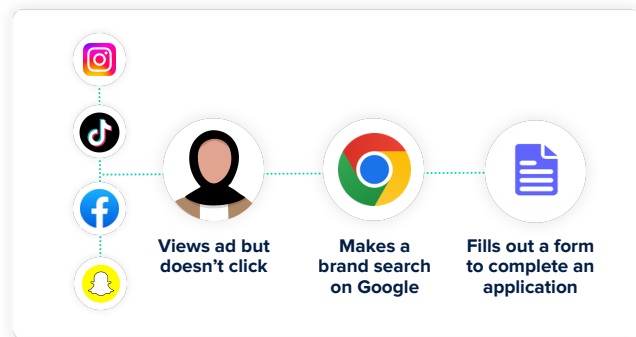


Ad platform duplication and bias

Due to the explosion in new digital ad platforms and channels, people are navigating the internet in different ways.

A decade ago, the main ad platforms would have been Google, Bing and Facebook.

Now, we have Instagram, Snapchat, TikTok, Pinterest, and Reddit, as well as industry-specific channels like UCAS (UK), course comparison sites, and education-directory platforms.



The nature of social channels also means they act like more traditional channels where there are no clicks to track but brand awareness is being created in the form of impressions and reach.

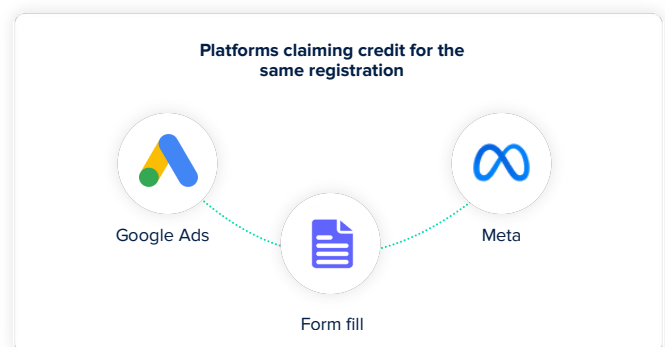
As clients navigate multiple channels, they experience various touchpoints with your brand, some of which impact registrations.

However, certain touchpoints can not be tracked using click tracking, and others may be duplicated.

For example, both Google and Meta might claim a single registration, making platform performance appear better than it is.

It's important to remember that these platforms have a vested interest in encouraging advertisers to spend more.

In reality, the visitor saw ads on both platforms before converting, meaning each channel deserves only partial credit for the registration, effectively halving the ROI.



Ad platform duplication and bias

Additionally, many registrations aren't captured in ad platform reporting. The modern user journey has become longer and more intricate than ever before.

With a wealth of information at their fingertips, people now exercise greater caution and independence, dedicating time to researching and comparing options prior to making a purchase decision.

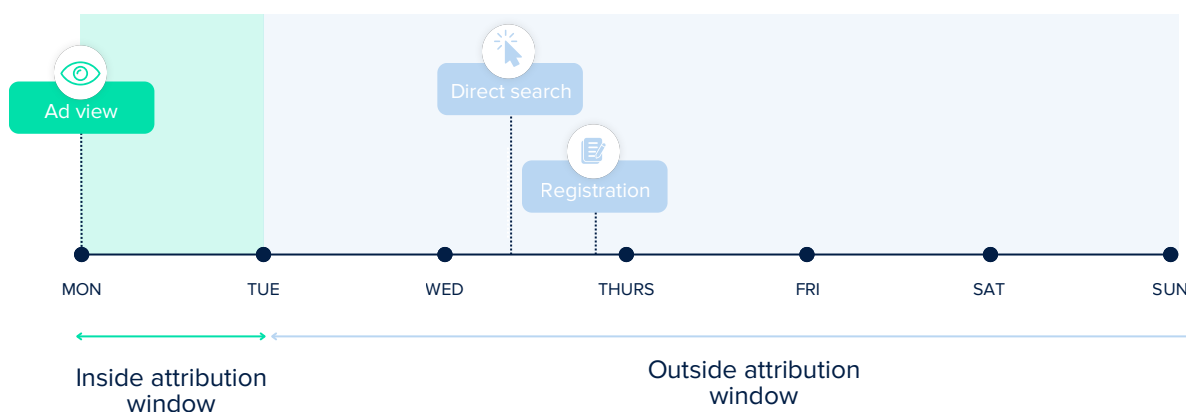
Prospective students and applicants often spend months researching courses, comparing institutions, attending open days, and returning to websites multiple times before applying.

Platforms like Meta use a 7-day click attribution window combined with a 1-day view attribution window, which can lead to many registration going unattributed.

This is especially challenging for education providers running upper-funnel brand and nurturing campaigns that prioritise awareness over immediate clicks.

As a result, these touchpoints often go unrecognised, while remarketing campaigns end up receiving most of the credit.

1-day lookback window in Meta



Longer and more complex journeys

Since we're on the topic of long user journeys, let's explore some of the key challenges they bring.

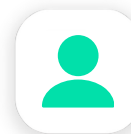
As pointed out above, the length of user journeys and the number of touchpoints pose significant hurdles for education marketers running campaigns on ad platforms. However, user journeys extend far beyond ad platforms. They can include:



Offline channels such as TV, radio, OOH, student recruitment events, and open days



Multiple devices used by a applicant throughout their journey



Education decisions researched by both students and parents, attributed to one

With activity spread across various online and offline channels, it becomes increasingly difficult to gain a clear, real-time understanding of what's truly influencing KPIs and overall results.

Growing privacy regulations

Governments and regulatory bodies are enforcing stricter privacy laws aimed at protecting personal data. Regulations such as the General Data Protection Regulation (GDPR), the California Consumer Privacy Act (CCPA), and the Family Educational Rights and Privacy Act (FERPA) require educational providers to handle personal and student data responsibly. These regulations place increasing scrutiny on profiling, user tracking, and the use of personal information, making privacy-first measurement and marketing more important than ever.

Additionally, users themselves are becoming more proactive in protecting their privacy. Many are blocking trackers, rejecting cookie consent banners, and using ad blockers more frequently than ever.

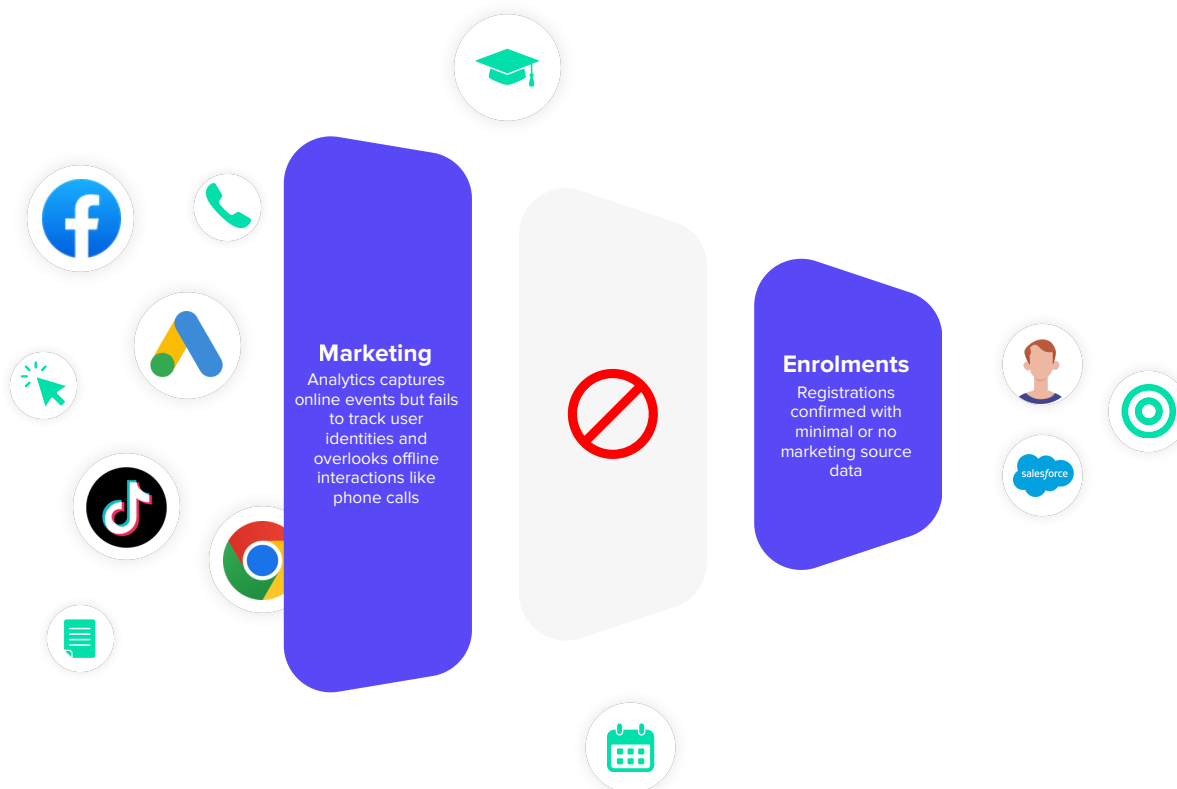
Siloed data across tools and teams

Like touchpoints, marketing data is scattered across disconnected silos, making it difficult to gain comprehensive insights. Education providers collect data through various applications, including marketing analytics, student information systems (SIS), and more.

In education, this challenge is often amplified. Unlike CRM tools, student information systems (SIS) and admissions platforms are frequently proprietary or custom-built, with no out-of-the-box integration to marketing tools. Applications and admissions data live in one system, marketing data in another, and there's no native bridge between them. However, each tool is managed by different teams and tracks data in its own way.

For example, we know GA4 can't capture personally identifiable information (PII) about website visitors. This means that when a prospective student submits an enquiry, starts an application, or enrolls, you can't track their email, name, or other contact details. At the same time, your admissions or student information system does store PII but lacks visibility into marketing sources and cost data.

Without a way to connect user identity in Google Analytics, it becomes impossible to trace high-value enquiries, applications, and enrolments back to their marketing origins. This disconnect creates a ripple effect, impacting everything from application attribution to online and offline budget allocation.



The approach to marketing measurement

- Overview

You need a more flexible, data-savvy approach that mixes the right methods for your channel and objectives

To tackle these challenges, a more flexible and data-driven approach is essential, one that blends multiple methodologies suited to the channel and objectives.

While no system is perfect, using the right models can unlock far deeper insights. Once the foundation is in place, a test-and-learn process can be introduced to pinpoint and validate the key drivers of effectiveness.

This ongoing process allows for continuous improvement, ensuring that marketing strategies remain aligned with wider goals.

By regularly assessing performance and making data-informed adjustments, marketers can optimise their efforts, allocate budget more effectively, and stay ahead of shifting behaviors.



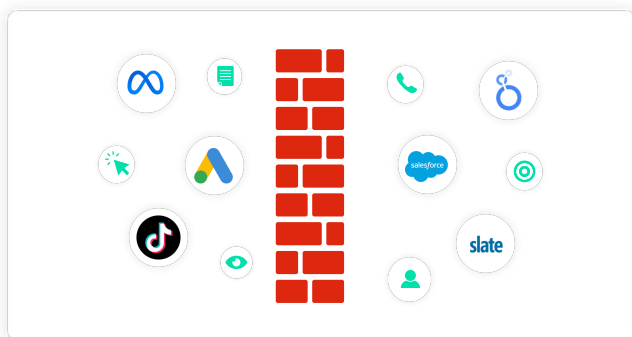
First-party data foundation

A well-structured marketing data ecosystem serves as the backbone of effective measurement and analysis.

A well-structured marketing data ecosystem is essential for accurate measurement and analysis.

It integrates disparate data sources by ingesting, cleaning, and matching information to create a unified, actionable view.

This approach breaks down data silos, enabling better decision-making.



Comprehensive tracking captures detailed user interactions, such as page views, traffic sources, UTM parameters, and events, across multiple touchpoints.

These events, tied to individual identifiers (e.g., email addresses or phone numbers), provide a granular view of user behavior.

To enhance insights, marketing systems integrate advertising platform data (costs, campaign metrics) with on-site behavior and align with student information systems.

Modern measurement frameworks can connect to both industry-standard and custom-built student information systems via an API, allowing education providers to unify data regardless of their existing tech stack. This closed-loop feedback system connects marketing efforts to revenue outcomes, ensuring a holistic view of performance.

However, traditional analytics tools like GA4 rely on their own tracking tags, providing sampled data and lacking integration with first-party, SIS, and external platform data. This results in a fragmented view that can skew toward platform biases, such as Google Ads.

To achieve a truly unbiased and comprehensive understanding of marketing effectiveness, education providers must move beyond these limitations and embrace a more integrated approach that combines first-party data, registration insights, and advertising platform data.

Measurement

With a solid data infrastructure and aligned tools, it's time to refine your measurement methods.

No single measurement methodology is perfect; each serves a specific purpose and comes with its own strengths and limitations. To illustrate this, the table below outlines key measurement methodologies, explaining how they work, their advantages and drawbacks, how frequently they should be used, and their ideal applications.

Method	MTA (Multi-Touch Attribution)	MMM (Marketing Mix Modeling)	Incrementality Testing	DDA + Impression Model
What	Tracks first party user interactions (clicks) across multiple touchpoints, providing detailed insights into the user journey.	Models full-funnel activity for a fairer view of impression-based channels and offline channels. Can also be used for historical look back and forward-looking forecasting.	Validates and calibrates models using a "gold standard" approach to determine if a campaign brought new enrolments or simply captured demand that would have converted anyway.	Combines click-based MTA and MMM to provide a holistic view of overall marketing effectiveness.
How	Uses tracking tags/pixels and cookies to track website touchpoints across multiple sessions. Server-side tags can also be used.	Rigorous statistical modeling (e.g., multivariate linear regression). Analyses the impact of ~30 variables (e.g., spend, promotions) on a target variable like enrolments.	Conducts holdout tests with similar audience groups, one exposed to the campaign message, the other not. Outcomes are compared, similar to medical testing.	Uses DDA (Data-Driven Attribution) for clicks and MMM results to derive weightings, redistributing credit to impression-based channels.
Pros	Real-time and granular (campaign, keywords, etc.). Best for click-based traffic.	Holistic view of all channels' impact on target objectives (e.g., enrolments).	Gold standard for measuring true incremental impact.	Provides a balanced, holistic, and granular perspective.
Cons	Digital-only, over-attributes clicks versus upper-funnel awareness campaigns.	Lacks granularity, requires historical data, and often needs human intervention.	Difficult to implement and not suited for ongoing reporting. Control groups can harm registrations and don't account for diminishing returns.	Assumptions made in weightings need periodic calibration.
Frequency	Ongoing / Real Time	Quarterly	Quarterly	Ongoing / Real Time
Use for	Click-based channel effectiveness and optimisation.	Holistic ROI, budget forecasting, historical lookback.	Proving campaign effectiveness, validating models.	Fair balance of holistic and granular attribution.

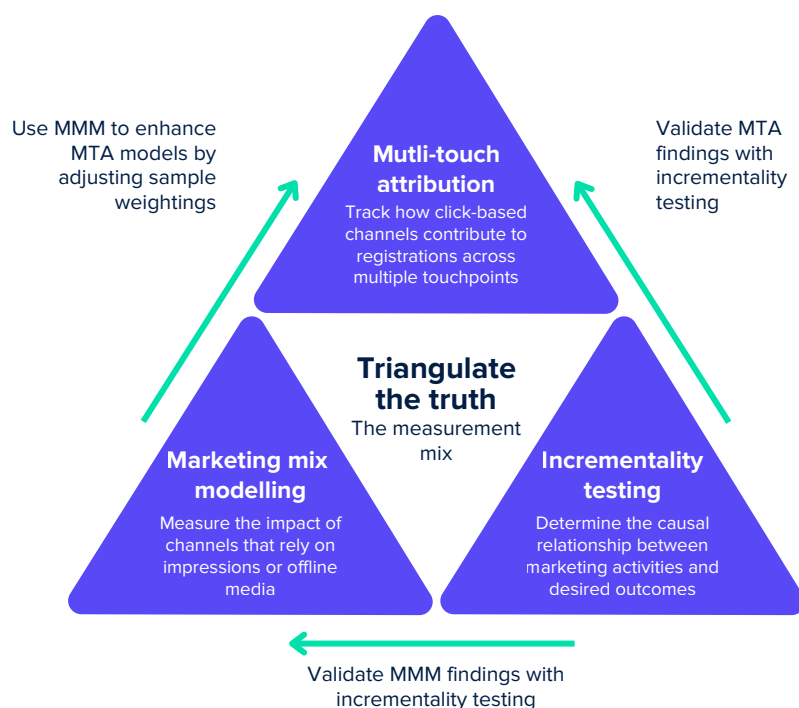
Triangulation

Blend MTA, MMM, and incrementality testing to reveal the full impact of your campaigns.

Triangulating the truth, a unified approach using multi-touch attribution (MTA), marketing mix modelling (MMM), and incrementality testing provides a nuanced understanding of campaign performance.

MMM offers a holistic view of channel impact, while MTA delivers granular insights at the campaign and keyword levels. It's essential to reconcile against a core metric, typically enrolments, to ensure alignment with desired outcomes.

Historically, relying on platform-reported results may have suggested cost-effective campaigns, but this often didn't translate to improved outcomes. Using these methods together provides a more complete view of marketing performance.



Ways to triangulate:

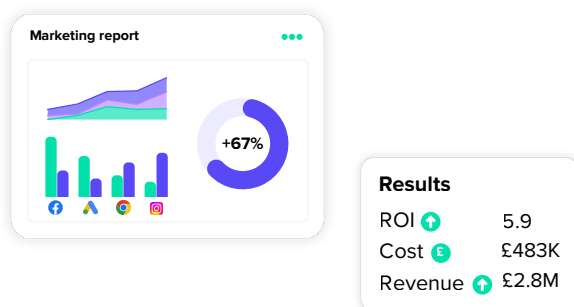
- 1 Use MTA to track click-based channels like paid search, mapping user interactions across touchpoints to understand how clicks contribute to outcomes.
- 2 Apply MMM to measure the impact of impression-based or offline channels, such as TV, radio, and print, by analysing historical data to assess how different marketing activities drive overall registrations.
- 3 Validate findings with incrementality testing to isolate the true impact of marketing efforts, distinguishing causation from correlation.
- 4 Combine insights from MMM and MTA to identify top-performing channels and focus testing efforts more effectively.
- 5 Leverage MMM findings to refine MTA models by adjusting sample weightings, delivering a more accurate and balanced evaluation.

Reporting

Focus on the metrics that actually matter and help guide both big-picture strategy and day-to-day decisions.

By combining first-party data with advanced methodologies, education providers can generate full-funnel reporting that connects marketing performance with enquiries, applications, enrolments, and ROI, segmented by key recruitment and institutional variables.

The ability to drill down into specific channels, campaigns, tactics, and even individual ads or keywords, filtered by criteria such as campus, faculty, course, student type, geography, and recruitment metrics, is crucial for answering common leadership questions about performance and where to invest next.

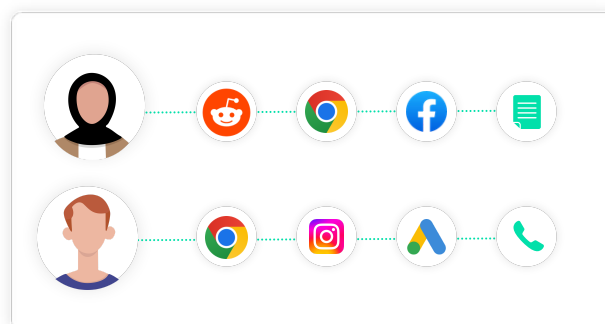


With a balance of high-level student recruitment and marketing ROI insights, alongside the flexibility to analyse performance in detail, marketing leaders gain greater confidence in the KPIs that matter most.

They can easily track key metrics such as Cost Per Enquiry, Cost Per Enrolment, ROI, and Enrolment Rate, enabling more productive discussions about optimisation and future investment.

Beyond strategic decision-making, this data plays a critical role in day-to-day student recruitment and marketing operations. Having immediate access to detailed, channel-specific reports allows teams to identify underperforming campaigns quickly and respond to significant performance shifts.

For example, by analysing prospective student journeys, teams can gain deeper insight into why campaigns are performing well and which touchpoints contribute most to enquiries, applications, and enrolments.



Activation

Leverage your first-party data to enhance targeting and optimise budget allocation efficiency.

One of the major issues we see with analytics reporting tools like GA4 is that they provide static, retrospective data, which you're then expected to base decisions on. With so many possible scenarios to consider, it can quickly become overwhelming.

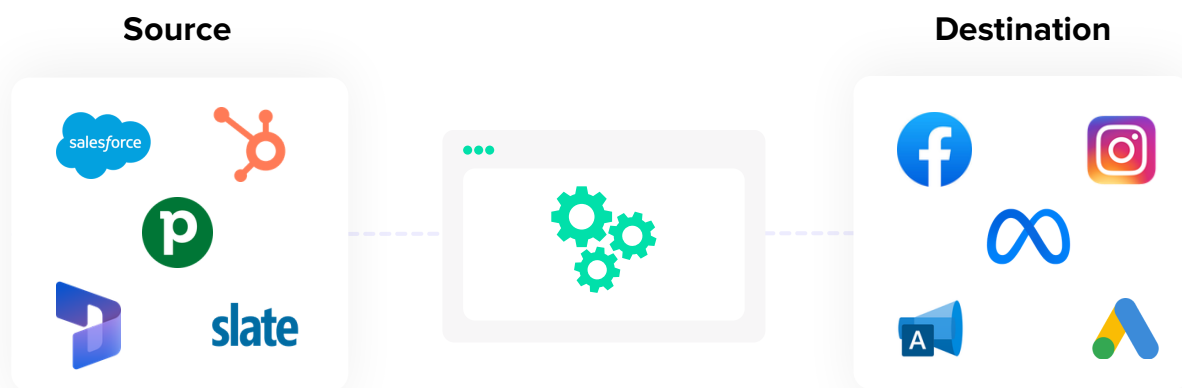
With marketing leaders responsible for measuring and optimising performance across such a broad range of channels, it can be hard to identify which interventions are likely to have the most impact.

Therefore, anything we can do to automatically improve efficiency is extremely beneficial. We call this automatic activation.

Campaigns suffer from a lack of efficiency by targeting existing applicants and people with messages at the wrong stages of the funnel.

This is because ad platforms are working without signals provided in the form of first-party data context.

A first-party data platform collects IDs along the journey and automatically sends them to the platform, providing more signal for targeting and tailoring specific audiences to each stage of the journey.



In practice - a deep dive into the measurement framework

To help you navigate each stage, we've provided a more detailed explanation along with some practical tips and advice.

Data - building a first party marketing data warehouse

In the ever-evolving landscape of digital marketing, data serves as the foundation for effective measurement and optimisation. A well-structured marketing data ecosystem enables education providers to transition from fragmented data sources to a cohesive, actionable framework that drives informed decision-making.

As we've briefly touched on above, a successful data-driven marketing strategy begins with consolidating disparate data sources into a unified system.

By integrating data from multiple touchpoints, such as tracking tags, student information systems, and advertising platforms, education providers can achieve a holistic view of applicant behavior. This approach ensures that marketing efforts are measured accurately and linked to outcomes.



The importance of first-party tracking

Comprehensive tracking plays a key role in understanding user behavior. With first-party tracking tags, education providers can capture detailed interactions like page views, traffic sources, UTM parameters, and registrations.

This makes it possible to attribute user actions, whether it’s a registration form, live chat, phone call, or purchase, giving a clear picture of marketing performance. As privacy regulations and browser policies limit third-party tracking, first-party tracking has become a reliable, compliant alternative.

Tracking type	Description
First-party tracking	This method focuses on tracking users on a single website, maintaining accuracy and respecting privacy standards. It remains less effected by recent changes in browser policies and privacy regulations, making it a reliable approach for detailed and granular data collection.
Third-party tracking	This technique uses third-party cookies to track users across multiple websites, including ad impressions and events. However, its reliance on cross-site profiling has made it increasingly problematic and restricted.

Unlike third-party cookies that follow users across different sites, first-party tracking focuses on activity within a single domain, ensuring accuracy while respecting privacy.

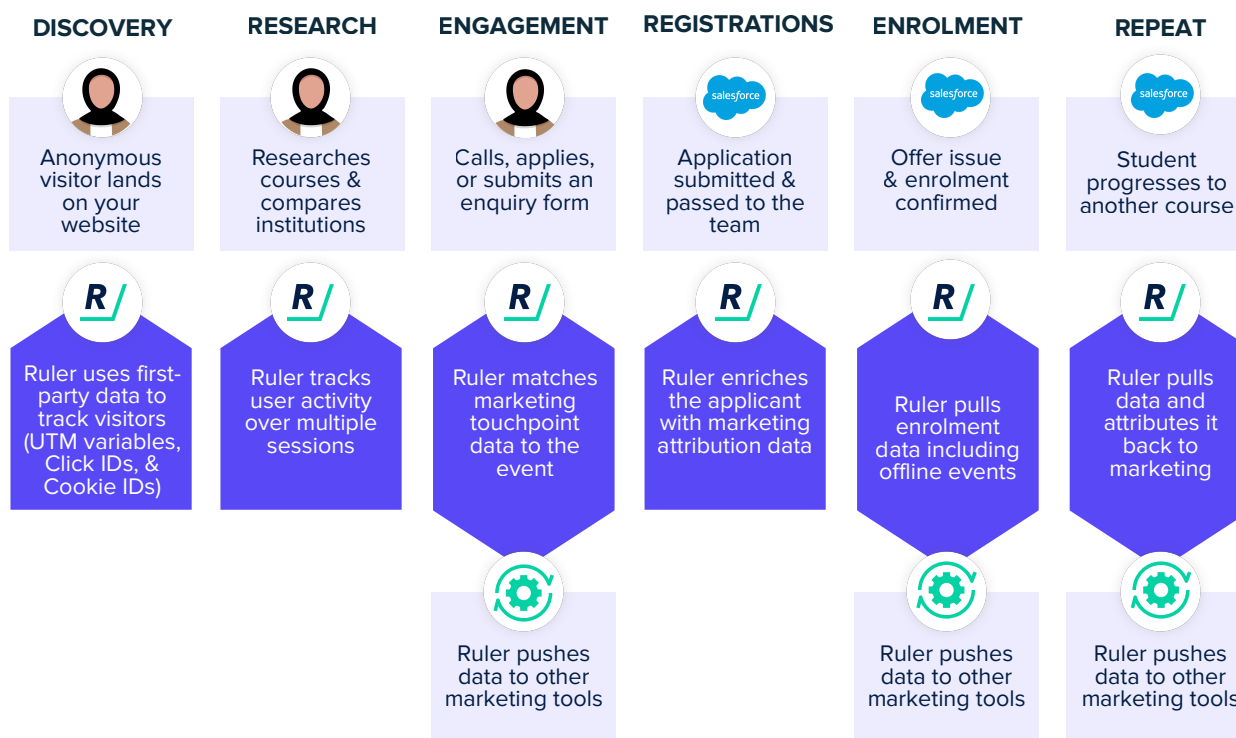
To keep data secure without losing valuable insights, education providers can also hash personally identifiable information (PII), balancing privacy with strong analytics.

Integrating ad platform and campaign data

Ad platform data, including costs, campaign metrics, and click data, also play a critical role in optimising marketing performance. By mapping platform IDs to user interactions via API integrations, education providers can refine their strategies accordingly. Utilising value track parameters, education providers can append campaign and keyword identifiers to landing page URLs, enabling more accurate attribution.

Incorporating offline data for a holistic view

Relying solely on platforms like GA4 results in an incomplete assessment of marketing performance. While these tools track first-party data and measure registrations, they often reduce outcomes to binary events, offering little insight into registration value or enrolment progression. Second, progression data in education is often stored in proprietary or custom-built student information systems, creating an additional barrier to connecting marketing activity with outcomes. For a more comprehensive view, education providers should integrate enrolment data and link it to individual-level interactions.



Whether it's form submissions, inbound calls, or transactions, linking online behaviours with offline outcomes, such as in-person registrations or offline group registrations, helps bridge the gap between marketing efforts and outcomes.

Measurement methodologies: Tracking & modelling

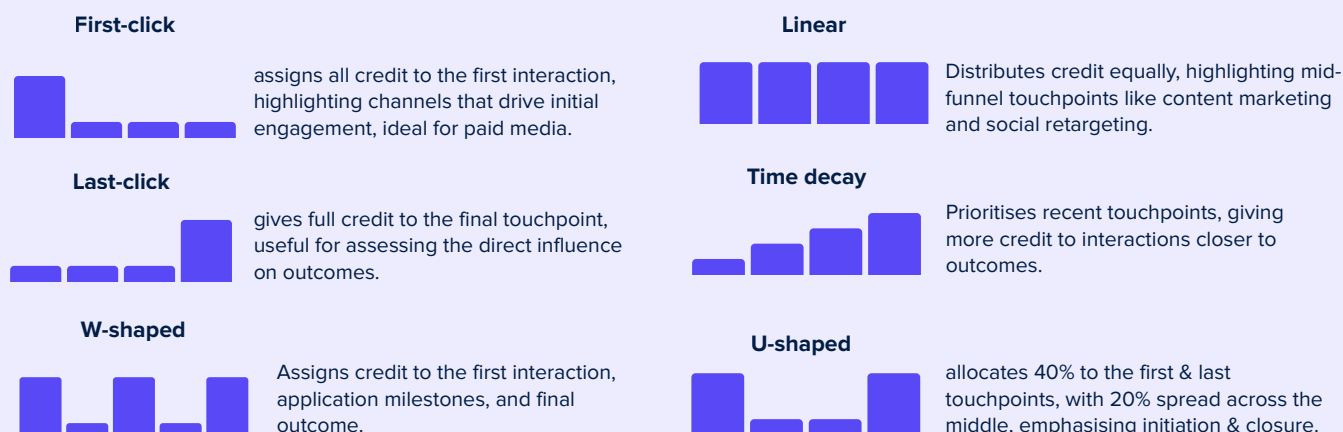
Once your data infrastructure is in place, the next crucial step is selecting your measurement approach. As we highlighted earlier, no single method is perfect, each has its own strengths and limitations. The right choice depends on your objectives and what you aim to achieve.

The modern approach is to adopt a unified method, combining MMM, MTA, and incrementality testing. This triangulation strategy allows for a more nuanced understanding of campaign performance, ensuring that measurement aligns with the specific characteristics of each marketing channel.

Multi-touch attribution: A deterministic approach

Multi-touch attribution (MTA) lies at the core of digital marketing measurement. It uses deterministic click tracking to assess touchpoints like ads, organic search, and social media before outcomes. MTA highlights which journey touchpoints drive registrations and enrolments, offering a clearer view of marketing performance and enabling data-driven decisions to optimise future campaigns.

Multi-touch attribution includes several attribution models, each with a different approach to assigning credit across touchpoints. These models fall under rule-based attribution, meaning they apply fixed rules for credit distribution without considering the actual influence of each touchpoint.



Data-driven attribution for a more sophisticated approach

Instead of relying on pre-set rules, this method dynamically assigns credit based on real-world influence. The advantage of DDA is its ability to eliminate the biases inherent in rule-based models, offering a more accurate representation of marketing impact.

A particular strength of DDA is its ability to uncover the true influence of upper-funnel activities. For instance, if a paid search ad introduces someone to a website, but they later return via organic search or by typing the URL, a rule-based model like last click would assign all the credit to the final touchpoint, ignoring the paid ad’s contribution.

However, a data-driven approach recognises the original ad’s role in initiating the journey, attributing it more weight while downplaying subsequent navigational visits.

You’ve likely encountered data-driven attribution in tools like Google Ads and GA4, but not all implementations are equal.

The key difference lies in transparency, data ownership, and customisation.

Tracking type	Description
First-party enriched MTA	Uses collected data for full attribution control and a detailed journey view. Enriches models with industry-specific insights, delivering more precise, actionable results tailored to the education provider and audience.
Third-party tracking	Relies on proprietary algorithms with limited transparency, often favouring Google’s paid search. Its use of aggregated data reduces accuracy and lacks visibility into all platforms, limiting unbiased cross-channel performance insights.

Marketing mix modelling: The probabilistic approach

Marketing mix modeling (MMM) complements multi-touch attribution by using a probabilistic approach to identify the cause-and-effect relationships between marketing activities and outcomes.

Originally developed in the 1950s to measure traditional channels like Print, TV and radio ads, MMM has regained prominence due to the decline of third-party cookies and need for a holistic view of both offline and online marketing.

Unlike deterministic models that track individual touchpoints, MMM analyses aggregated data over time using statistical techniques such as multivariate linear regression to estimate the impact of various marketing efforts on enrolments.

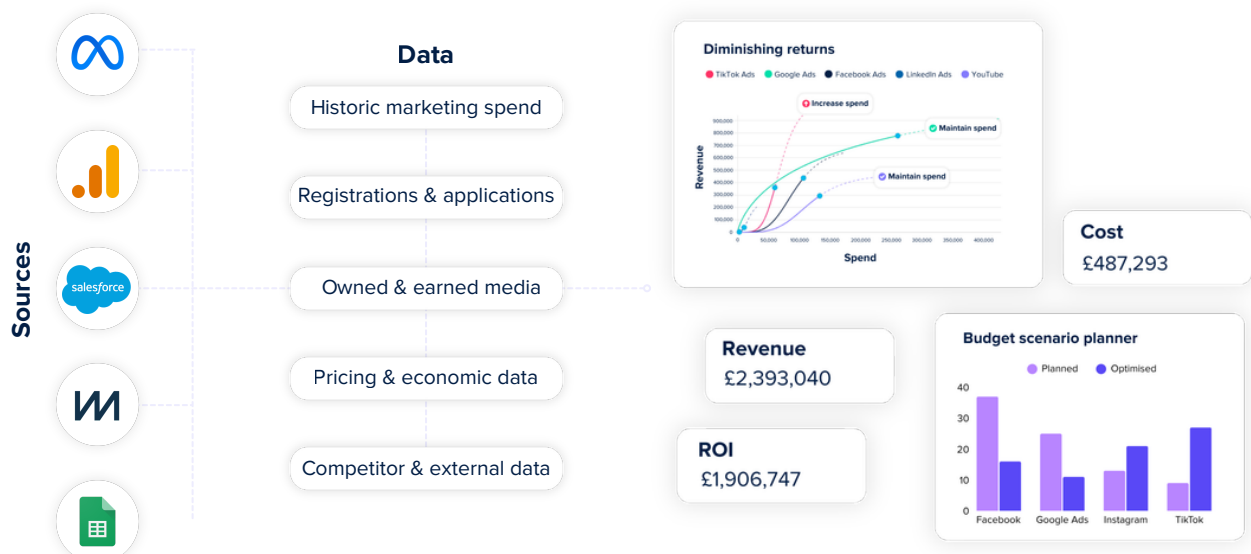
A key advantage of MMM is its ability to evaluate both digital and traditional channels equally.

It offers a more comprehensive understanding of marketing effectiveness.

MMM can incorporate up to 30 variables simultaneously, including brand awareness, seasonality, promotions, competitor activity, and external factors like weather.

Campaign types can also be grouped to prevent overfitting by isolating performance metrics for different objectives such as brand, remarketing, and awareness campaigns.

Another significant benefit is that MMM attributes credit only where incremental impact is detected, while residual credit is allocated to the base, representing the cumulative effects of past marketing efforts that continue to influence brand awareness.



Historical lookback

MMM's use of aggregated data means you can easily explore both past trends and future forecasts. In practice, you can analyse performance as far back as your data allows. Typically, we recommend using at least two years of historical data to establish a robust baseline rather than starting from scratch.

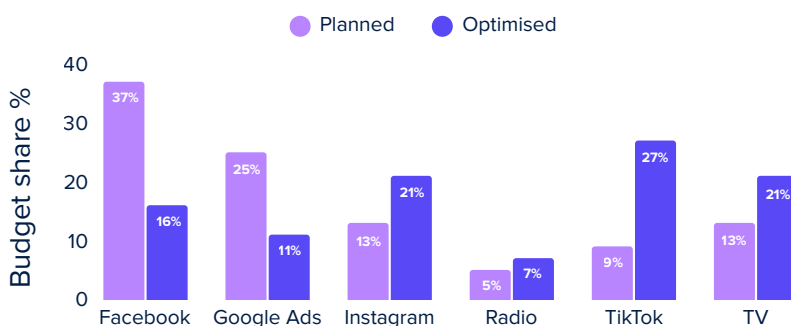
In education, enrolments and tuition revenue often lag behind the original enquiry or application by several weeks or months. Deferrals, withdrawals, transfers, and changes in study load can also mean that the value associated with an application or enrolment isn't the final value recognised by the institution. To account for this, MMM should be built using recognised enrolment or tuition revenue rather than initial application or enrolment values, with the model updated as enrolment and revenue data matures. This ensures the analysis is based on stable institutional outcomes rather than figures that may change over time.

Budget scenario planning

MMM provides valuable insights for budget optimisation by simulating different scenarios to identify the most effective allocation of marketing spend. For example, it generates diminishing returns curves that show when additional investment no longer delivers a proportional increase in enquiries, applications, enrolments, or tuition revenue. This helps marketers understand the available headroom and estimate the potential impact of increased investment.

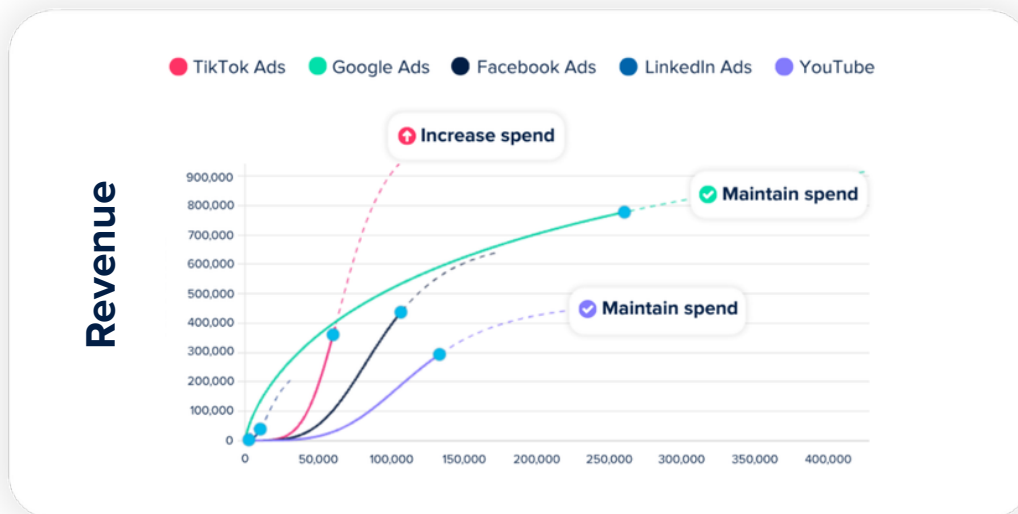
The model also accounts for the lag between campaign exposure, enquiries, applications, enrolments, and tuition revenue recognition. As a result, short-term marketing performance metrics can understate the true impact of recruitment activity, making MMM's longer lookback period particularly useful for evaluating channel performance. The statistical rigour and clear visual outputs also help build stakeholder confidence, especially when student recruitment planning and budget allocation have previously relied on assumptions rather than evidence.

Budget scenario planner



Scenario planning and budget optimisation

These curves are crucial for recognising the saturation point of marketing channels. If a campaign reaches saturation, further investment may not deliver the same return.



The platform tests budget adjustments incrementally (for example, in £100 increments) to determine where each additional pound can be best allocated for maximum return. Our solution offers a number of preset scenarios:

- Optimised position: Reallocates the past eight weeks of spend to maximise revenue returns, with channel budgets constrained between 70% and 150% of actual spend to maintain realism. Variations with +10% and -10% budget adjustments are also available.
- Efficiency position: Allocates the budget to achieve a targeted Return on Ad Spend (ROAS) of 4.0, potentially reducing overall spend compared to previous allocations.

It's best to refrain from major budget changes when a model is newly implemented. A prudent approach is to adjust budgets by 10% at a time and review outcomes during the next model refresh, typically quarterly. In the meantime, DDA and Impression models can be used with previous weightings.

Our data often reveals predictable patterns across channels. Saturated channels, like search engines, offer less headroom due to long-term use.

In contrast, platforms like Snapchat and TikTok show greater growth potential. Although less saturated, these platforms can be harder to measure but offer promising opportunities for expansion.

DDA + impression model: Blending deterministic & probabilistic

A Ruler proprietary model, the innovative DDA + Impression Model combines the strengths of deterministic click-based models and probabilistic impression-based models.

The DDA only (Data-Driven Attribution without impression weighting) model excels at identifying the most influential campaigns and touchpoints for driving registrations and enrolments.

However, it can under-value upper-funnel channels, such as social media, which may not always generate clicks but are crucial for building brand awareness.

To address this, the DDA + Impression Model integrates insights from marketing mix modelling to account for upper-funnel channels effectively.

MMM-derived weightings are applied to DDA data, ensuring that channels responsible for brand awareness are properly credited.

The model re-distributes credit, shifting weighting from lower-funnel activities (like direct and brand search) to upper-funnel channels such as social media or display ads.

This re-attribution is essential because upper-funnel channels often create the initial awareness that leads to subsequent registrations.

Without these initial engagements, lower-funnel efforts would be less effective.

Channel	Cost	First-click attribution			ML impression attribution		
		Conv	Cost per conv	Revenue	Conv	Cost per conv	Revenue
Direct	£0.00	1569	£0.00	£626,031	784	£0.00	£312,816
Instagram Ads	£5,182.59	5	£1,036	£1,995	372	£13.93	£148,428
Google Ads	£11,630.66	401	£29.00	£159,999	667	£17.44	£266,133
TikTok	£5,577.12	9	£619	£3,591	475	£11.74	£189,525
Google Search	£0.00	890	£0.00	£355,110	576	£0.00	£229,824

DDA + impression model: Blending deterministic & probabilistic

In some cases, marketers have seen up to 95% of credit reattributed to upper-funnel activities, especially those focused on driving search registrations.

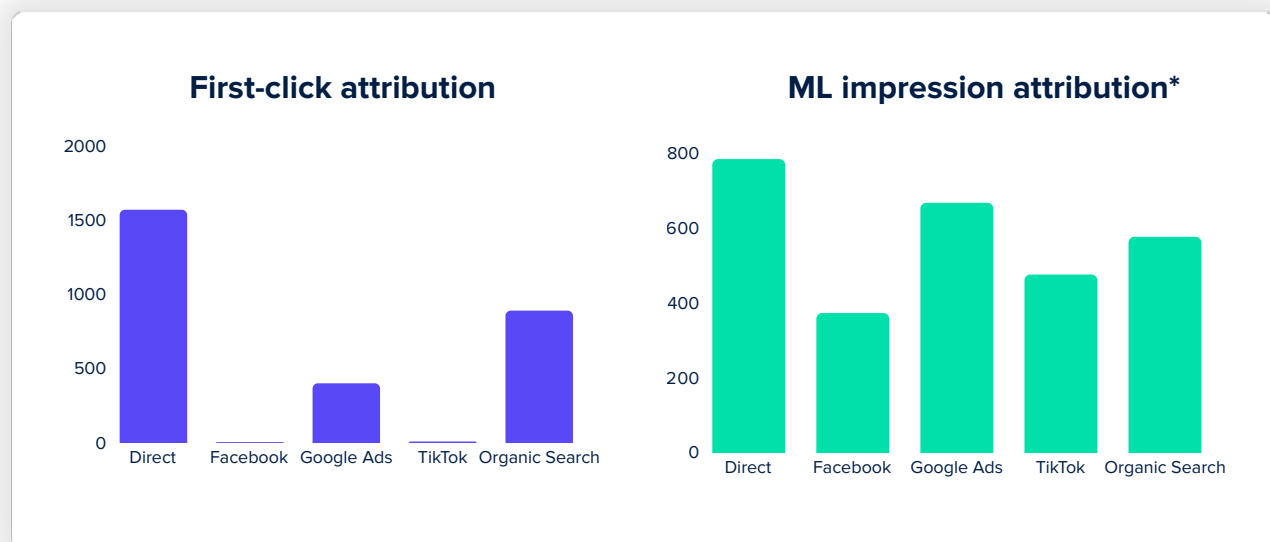
Even brands with established awareness can see a significant percentage of credit shifting to these upper-funnel channels, typically around 50%.

This model effectively balances the precision of a deterministic data-driven attribution approach with the broader insights of a holistic MMM strategy.

For educational providers, without MMM, we offer industry-specific weightings tailored to their campaign types, industry verticals, and maturity levels.

These weightings help redistribute credit more effectively, incorporating signals from user activity such as click-through rates, impressions, and on-site behaviour.

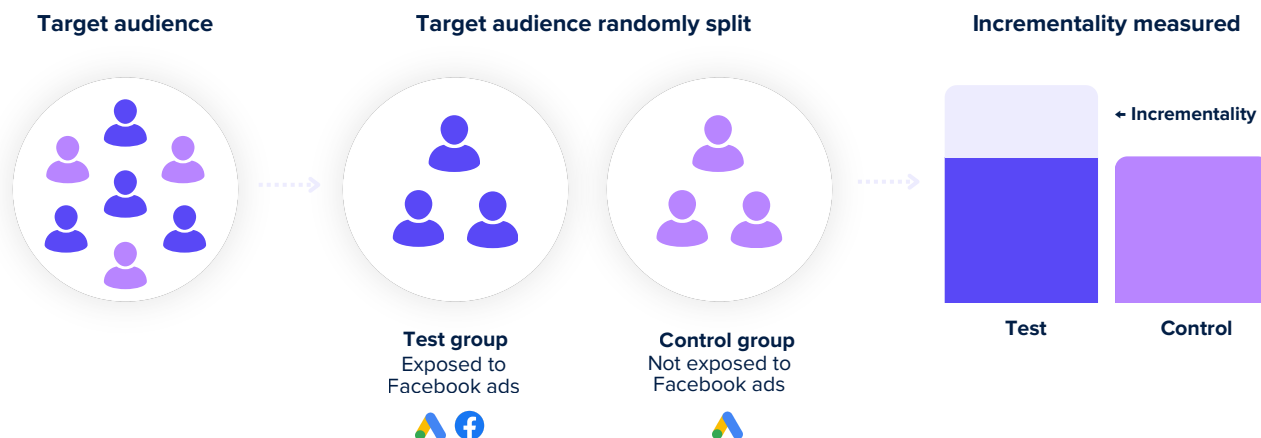
They provide a sophisticated and adaptable solution for educational providers without access to MMM.



***Outcomes have been redistributed from Direct and Google organic to upper-funnel advertising channels**

Incrementality testing: Validating models

The final methodology we highlighted is incrementality testing, also known as lift studies or randomised control trials. This approach is widely regarded as the gold standard for measuring causality in marketing. By splitting audiences into two groups, one exposed to a campaign (the treatment group) and one that isn't (the control group), incrementality tests help validate attribution models.



For example, a brand might implement this by selecting two similar geographical regions, such as New York and Los Angeles, and comparing registration rates between them.

This allows marketers to quantify how much of the observed impact is directly attributable to the campaign, as opposed to registrations that would have happened regardless. The difference in performance between these groups represents the campaign's true incremental impact.

While setting up incrementality tests can be complex, and they're not typically used for continuous measurement, they provide invaluable insights into campaign effectiveness.

Many platforms, including Meta, Google, and Microsoft Ads, offer built-in options for incrementality tests. Since these are advanced features, account manager approval may be required. Strategically applied, these tests support a continuous test-and-learn approach, helping marketers refine strategies.

When combined with probabilistic models, they ensure validation and calibration. While models predict outcomes based on assumptions, incrementality tests provide empirical evidence of impact. This combination enhances accuracy, reduces bias, and minimises external confounding factors, driving more reliable, data-backed decisions.

Reporting and insights

Whilst first-party data and measurement methodologies are vital components of a successful approach to measurement, they are only useful when paired with actionable insights and clear reporting.

Reporting serves as the foundation for decision-making, providing marketers with the context they need to optimise campaigns, allocate budgets, and demonstrate value to leadership.

Core metrics: Cost per Enrolment (CPEn) & ROI

At the heart of marketing reporting are metrics such as Cost per Enquiry (CPE), Cost per Application (CPA), Cost per Enrolment (CPEn), and Return on Investment (ROI). These core metrics provide a clear view of recruitment performance, helping education providers understand how their marketing investment translates into enquiries, applications, and enrolments. Marketing teams typically align these metrics with institutional objectives, such as application targets, enrolment goals, recruitment efficiency, or student acquisition costs. For example, institutions may work towards a target cost per application or cost per enrolment while maximising ROI across their recruitment campaigns. These metrics form the backbone of reporting and are critical for day-to-day campaign optimisation.

Custom segmentation for tailored insights

One of the most valuable features in modern reporting tools is the ability to create custom segmentations.

Segmentation allows marketers to categorise and analyse performance across different dimensions, such as:

- Course or programme
- Level of study (undergraduate, postgraduate, short course)
- Domestic vs. international applicant
- Intake or admissions cycle (e.g. autumn intake, clearing)

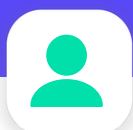
For example, institutions with multiple faculties or campuses may have unique enrolment targets or budgets for each segment.

Custom segmentation ensures that reporting reflects these specific requirements, enabling marketers to provide more granular, commercially relevant insights.

Contextualising campaign performance:

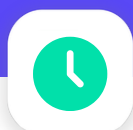
Insight reports

A critical challenge in reporting is ensuring that campaign performance is properly contextualised, particularly when communicating insights to senior leadership. For example, de-duplicated reports that provide a unified view of performance are valuable for high-level summaries but may not capture the full role individual campaigns play within the customer journey. Therefore, additional insight reports are required to provide a more complete understanding of campaign impact, such as:



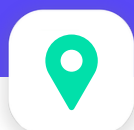
Path-to-application analysis

Identifies the most effective paths and key touchpoints leading to registrations



Time-to-application

Measures how long it takes for a applicant to convert after the first interaction



Campaign touchpoint frequency

Tracks how often a campaign contributes to applications, without closing them



Uplift impact analysis

Evaluates a campaign's influence on other touchpoints and its measurable contribution

There's also channel contribution, which highlights where different channels appear in the funnel. For example:

- Upper funnel: Social media often drives awareness and is commonly used for long-term brand building.
- Middle funnel: Search engines guide applicants as they evaluate options, often referred to as the consideration stage.
- Lower funnel: Email, organic search, and affiliate marketing tend to close the application, also known as short-term activation, direct response, or demand capture.

By visualising these stages, marketers can better understand how each channel contributes to the overall journey and plan campaigns more effectively.

These insights not only validate the effectiveness of marketing efforts but also help marketers communicate their value to stakeholders who may not fully grasp the nuances of attribution or campaign interplay.

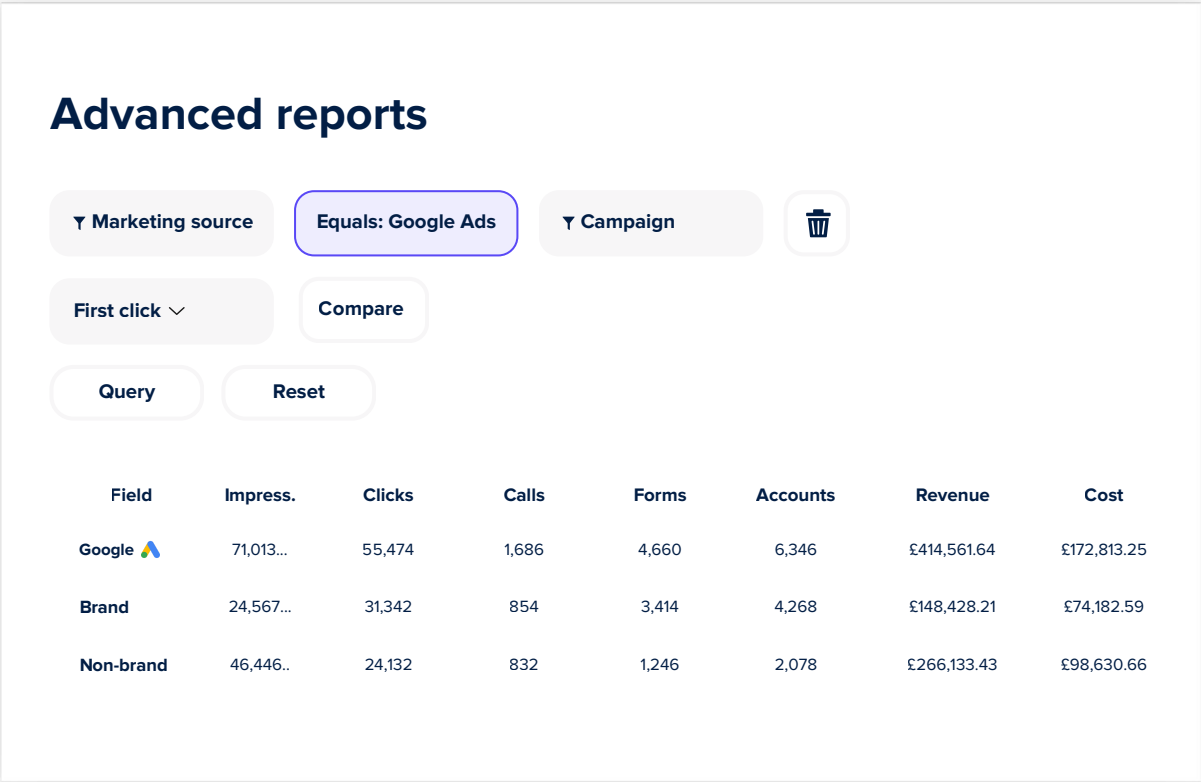
Bridging insights with commercial outcomes

Ultimately, reporting is not just about tracking metrics, it’s about providing the context and insights needed to make informed decisions and drive significant outcomes.

By combining attribution modelling, advanced analytics, and custom segmentations, marketers can not only measure but also demonstrate the full impact of their efforts. This helps them optimise campaign strategies effectively while showcasing their value to leadership teams.

In an increasingly competitive marketplace, robust reporting and actionable insights are no longer optional, they are essential.

They serve as a critical enabler, empowering edto achieve marketing success and gain a competitive advantage over others in the industry.



Activation: Optimisation on autopilot

As previously discussed data is at the core of decision-making, however analytics platforms and reporting tools provide retrospective insights, but marketers need actionable strategies to leverage this data in real time.

Enter the activation layer, a transformative approach that bridges the gap between data collection, analysis, and actionable outcomes.

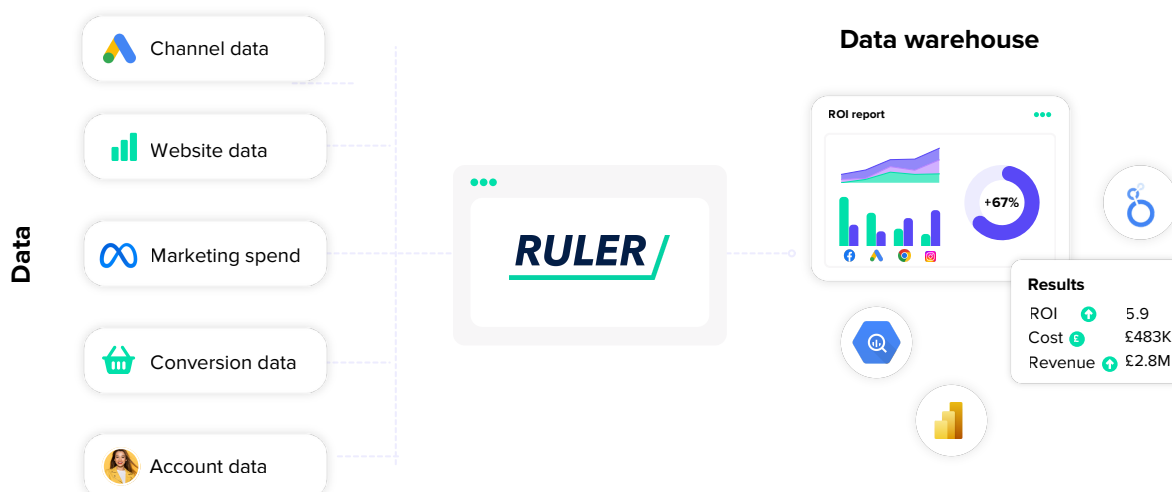
Enriching student platforms with marketing insights

One of the most powerful use cases of the activation layer is enhancing your CRM/SIS system and other tools with rich marketing data. By combining key insights, such as registrations and enrolments, with marketing source data, student platforms evolve from simple databases into powerful strategic tools. They provide a complete view of interactions. This enriched data not only improves internal reporting but also gives admissions and marketing teams the intelligence they need to make smarter, data-driven decisions.

The same concept applies to intelligence and data warehousing platforms like BigQuery or Snowflake.

These systems cater to a wide range of reporting needs, allowing teams to build customised dashboards that deliver precise, actionable insights.

Automating data transfers to these platforms streamlines reporting workflows and ensures leadership have real-time access to the data they need to make informed decisions.



Campaign and audience activation

Activation extends beyond reporting, it's pivotal for optimising campaigns and audience targeting. By sending identifiers, such as click IDs captured from landing page urls, back to advertising platforms like Google Ads or Microsoft Ads, education providers can link offline events, such as telephone registrations and enrolments, to ad performance.

This enables ad platforms to optimise bidding and targeting algorithms, which have become increasingly reliant on signal inputs due to the decline of third-party cookies. For example, if an ad campaign drives registrations or enrolments offline, education providers can use this data to inform ad platforms. The platforms, in turn, can target audiences with similar characteristics more effectively, enhancing the performance of campaigns.

Fine-tuned audience targeting

Audience segmentation is another area where activation is key. By leveraging first-party data, marketers can dynamically segment audiences into categories such as prospective students, existing students, and applicants at different stages of the funnel.

This ensures prospective students are grouped into the right segments based on where they are in the funnel. For example, you could set up and personalise strategies, such as:

- Retargeting audiences: Retarget users who viewed a specific course or programme but didn't enquire.
- Suppressing ads: Suppress ads to confirmed students pre-enrolment; switch to onboarding or welcome messaging instead.
- Cross-selling accounts: Post-enrolment cross-sell, accommodation, student finance support, add-on modules or short courses.
- Funnel-based campaigns: Move applicants from course inspiration (awareness) → programme comparison (consideration) → application intent (conversion), with messaging tailored to each stage.

Automation plays a key role here, with API connections facilitating seamless data transfer between platforms and enabling real-time adjustments based on applicant behaviour and insights.

Shaping the future of marketing measurement

The success of marketing campaigns depends on how well we measure its impact and adapt strategies in real time.

A robust marketing measurement framework provides a structured way to assess performance by integrating advanced methodologies and tools. At the heart of this framework is data, the essential fuel for generating actionable insights.

By using a combination of multi-touch attribution, marketing mix modelling, and incrementality tests, marketers can get a clearer picture of both short-term and long-term campaign effects. Triangulating these methods helps navigate the complexities of cross-channel and cross-device interactions with greater accuracy.

To refine attribution even further, the dynamic data-driven attribution model, paired with impression-based modeling, ensures that every impression and interaction is linked to its actual contribution to registrations.

This level of detail allows brands to allocate budgets more effectively, ensuring that every marketing dollar drives maximum impact.

Marketers who embrace this approach can make smarter, data-backed decisions that drive growth, fuel innovation, and strengthen student connections.

Taking it a step further, automatic activation turns insights into immediate action. By automating decisions, like campaign optimisations or budget shifts, education providers can stay agile in an ever-evolving digital landscape.

Ultimately, a well-rounded marketing measurement framework combines diverse data sources, rigorous methodologies, and cutting-edge technology to provide a complete view of performance.



How a B2C company with a lead gen model unified online and offline marketing

A B2C lead generation brand built a single, trustworthy view of marketing performance, enabling confident budget decisions.

9x

ROAS on key
offline channels

<50%

Conversions generated
by Paid Media

100wks

Historical data
modelled for accuracy

Analytics tools, ad platforms, and CRM systems each told a different story, and none of them agreed.

With budget spread across paid search, paid social, display, radio, and press, the team had no unified view of what was actually driving revenue. Platform dashboards claimed overlapping credit, online and offline sat in entirely separate reporting lanes, and confidence in decision-making was low.

The result was cautious investment, not from a lack of ambition, but because nobody could say with confidence where real performance was coming from.

Ruler built a first-party marketing mix model using approximately 100 weeks of weekly spend and revenue data across every active channel. Online and offline were treated identically, the same methodology, the same lens.

Rather than anchoring revenue to the date it was recorded, the model used the date of first customer interaction, keeping attribution close to the actual marketing event and removing the distortion that reporting lags create.

Every channel sat inside a single unified model, no separate reporting lanes, no overlapping platform credit. Radio emerged as the standout, delivering a higher ROAS than two digital channels receiving significantly more investment, a digital analytics platform alone would never have surfaced. Paid search was revealed to be over-weighted relative to its actual return, while marginal ROAS analysis showed Google Non-Brand was already approaching saturation.

The team now models budget shifts before committing, with a single source of truth aligned across internal teams and external agencies.

Next Steps

The marketing measurement framework provides a high-level view of key measurement challenges, strategies to address them, and potential opportunities.

Explore our Playbooks for detailed guidance on implementing specific tactics, or reach out to us by booking a demo to learn more.

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