

Journal Article - Clicks to Clarity Teaching Metrics

Title: From Clicks to Clarity: Teaching Digital Marketing Metrics through Google Analytics in Higher Education

Author: Bushell, C. (2025) *From Clicks to Clarity: Teaching Digital Marketing Metrics through Google Analytics in Higher Education*.

Abstract: In an era where marketing effectiveness is increasingly judged by data, the ability to interpret digital metrics is a core competency for emerging marketers. This article explores the role of Google Analytics as both a pedagogical tool and an industry-relevant platform in higher education. Drawing on classroom practice, student project outcomes, and reflections from a postgraduate digital marketing course, we examine how students engage with metrics such as click-through rate (CTR), customer acquisition cost (CAC), bounce rate, and return on investment (ROI). The findings reveal a gap between technical proficiency and strategic interpretation, particularly when students rely on surface-level indicators or platform-defined success. We argue for a metrics-led pedagogy that embeds critical thinking, strategic framing, and an awareness of platform bias into the teaching of marketing analytics. Ultimately, the article offers insights for educators seeking to bridge the divide between data access and data understanding in digital marketing education.

Introduction: As digital platforms increasingly mediate the relationship between brands and consumers, marketing has become inseparable from measurement. Whether through engagement rates on Instagram or bounce rates on brand websites, the success of a marketing strategy is often determined by its metrics. This quantification of performance has given rise to a new set of industry demands: marketers must not only be creative, but also numerate, analytical, and data-literate.

Within higher education, digital marketing curricula are rapidly adapting to reflect this shift. However, while tools such as Google Analytics offer students access to real-time data and dashboards, access alone does not guarantee understanding. Students may become fluent in identifying numbers but remain uncertain about their strategic significance. For example, a high click-through rate may look impressive, but what does it mean if those clicks fail to convert? Likewise, an increase in site traffic may mask a high customer acquisition cost that renders the campaign unsustainable.

This article argues that teaching digital marketing metrics must move beyond technical instruction to include critical and strategic thinking. Using Google Analytics as a case study, we examine how metrics such as CTR, ROI, CAC, and engagement are presented, interpreted, and sometimes misinterpreted by students. We draw on data from student projects, feedback, and teaching experiences from a postgraduate module in digital marketing analytics. The goal is to understand not only what students learn from using Google Analytics, but how they learn, and where misunderstandings persist.

Ultimately, we propose a pedagogical framework for teaching metrics that aligns platform-based learning (Google Analytics, Meta Ads Manager) with critical evaluation and marketing strategy. In doing so, we aim to support marketing educators in developing data-savvy graduates who can bridge the gap between access to data and meaningful insight.

Literature Review: The use of metrics in digital marketing has expanded significantly, reflecting broader trends toward data-driven decision-making. Scholars such as Chaffey (2020) and Zahay (2015) have highlighted how platforms like Google Analytics enable marketers to monitor performance in real-time and adapt strategy accordingly. However, other researchers caution that an overemphasis on quantification can lead to the prioritisation of vanity metrics—such as impressions and likes—over more meaningful indicators like ROI or CAC (Tuten & Solomon, 2021).

The educational literature mirrors this tension. Teaching digital marketing increasingly involves not just platform familiarity but also the cultivation of data literacy. Data literacy, as defined by Prado and Marzal (2013), involves not only reading and interpreting data but also evaluating its reliability and applying it contextually. In marketing education, this translates into the ability to use data to inform strategic decisions.

A number of pedagogical models advocate experiential learning through platforms like Google Analytics, allowing students to simulate real-world scenarios. Yet, as highlighted by Mulhern (2009), without a structured critical framework, students may simply reproduce platform logics—e.g. equating high traffic with campaign success—without deeper strategic insight. This underscores the importance of integrating critical pedagogy into metrics instruction.

Scholars like Buckingham Shum and Ferguson (2012) argue that analytics can only be useful in educational contexts when paired with reflection and explanation. In the context of marketing, this suggests that metrics must be contextualised within broader campaign goals, customer journeys, and value propositions. Without this, data becomes an echo chamber, reinforcing platform-centric definitions of success.

Teaching Context: The context for this study is a postgraduate module titled "Digital Marketing Analytics and Social Media," taught at a Ravensbourne University UK. Students enrolled in the course engage with a blend of theoretical instruction and practical application using tools such as Google Analytics, Meta Ads Manager, and Semrush. The cohort typically includes students from a wide range of professional and academic backgrounds, from creative industries to computer science, requiring the teaching approach to be both inclusive and adaptive.

In the first half of the module, students are introduced to core concepts such as CTR, bounce rate, conversion rate, CAC, and ROI. These are explored through lectures and seminar discussions, where students critique real-world campaign examples. The aim is to shift students' focus from mere numerical outputs to the narratives behind those numbers: what do these metrics indicate about user behaviour, campaign effectiveness, and brand positioning?

In the second half of the module, students complete a live or simulated campaign project using a practice GA4 account. Working in teams, they are tasked with setting objectives, selecting KPIs, and running campaigns (either real or simulated) across platforms such as Instagram, Google Ads, or email marketing tools. They then gather data through Google Analytics and compile a dashboard showing campaign performance over time.

Assessment includes a reflective report where students analyse the effectiveness of their digital strategy and evaluate which metrics mattered most. This structure provides insight into how students interpret data in context and highlights common areas of misunderstanding—such as overemphasising traffic over conversion, or confusing correlation with causation. In many cases, students default to the most prominent metrics displayed on their dashboards, neglecting deeper layers of performance analysis such as assisted conversions or audience segmentation.

Case Examples and Findings: In one project, students designed a campaign to increase newsletter sign-ups for a local sustainability blog. They tracked pageviews, traffic sources, bounce rates, and conversions using Google Analytics. While most students accurately reported increases in traffic due to targeted Instagram ads, only a few connected those clicks to actual sign-ups. A common misstep was equating high engagement on social media with campaign success, without linking this to actual conversions. This reflected a misunderstanding of the distinction between awareness and acquisition in the marketing funnel.

In another case, a team promoting a fitness apparel brand spent heavily on Google Ads. Their CTR was high (6.4%), but their cost per acquisition was also high due to a low on-site conversion rate. The students initially interpreted the campaign as successful until prompted to calculate ROI. Once CAC was factored in, the campaign was revealed to be loss-making. This led to valuable discussion about budgeting, landing page design, and targeting. Notably, students reflected that they had been misled by the GA4 interface, which highlighted traffic over cost-efficiency.

Another group developed a TikTok-led campaign for a local coffee brand, focusing on engagement-driven content. Their videos performed well in terms of shares and likes, but when reviewing metrics in GA4, they found that the bounce rate from TikTok referrals was extremely high. Users were intrigued by the content but did not stay or explore the site. The students learned that a successful social post does not necessarily translate into a successful conversion journey.

These examples reflect a broader pattern: students can navigate dashboards but often struggle to translate metrics into strategic insights. Interviews and reflections reveal uncertainty around multi-touch attribution, goal-setting, and the significance of average session duration. The data suggest that while students are comfortable with platform tools, they require guidance to develop critical evaluation skills. Some students conflated correlation with causation, interpreting a spike in traffic as the result of a particular action without verifying through segmented reporting.

Discussion: These findings raise important questions about the teaching of metrics in digital marketing education. While tools like Google Analytics offer rich datasets, they do not inherently teach strategy. Students need frameworks for interpreting what the data means in relation to goals, audience behaviour, and broader marketing principles.

This suggests a need for pedagogical models that integrate platform use with critical discussion. For example, teaching CAC and ROI alongside exercises in budgeting and forecasting allows students to see the financial implications of their data. Similarly, analysing bounce rate in relation to user journey and UX design encourages students to move beyond surface statistics.

Moreover, the platform interface itself can shape student thinking. If a dashboard prioritises certain numbers (e.g. users or pageviews), students may assume these are the most important indicators. This calls for an explicitly critical pedagogy that questions platform defaults and encourages strategic thinking.

The concept of “platform literacy” becomes relevant here: educators must help students understand not just the data outputs but the logic, incentives, and limitations of the platforms themselves. In Google Analytics, for example, certain metrics are prioritised due to their commercial utility, which may not always align with strategic marketing objectives.

There is also the issue of predictive analytics. GA4 increasingly includes AI-generated insights and forecasts, such as predicted churn or purchase probability. While useful, these tools can lull students into passive acceptance of recommendations, bypassing critical thinking. Educators must teach students to question these predictions: How was the model trained? What assumptions are baked into the data?

Finally, we must consider the future of metrics in the context of privacy and tracking limitations. As cookies are phased out and platforms become more restrictive with user-level data, the landscape of digital measurement will evolve. Preparing students for this means teaching adaptability and cross-platform thinking, rather than reliance on a single analytics suite.

Conclusion: Digital marketing education must equip students not just to read dashboards, but to interpret them in meaningful, strategic ways. Google Analytics provides a valuable entry point into the world of digital metrics, but it must be accompanied by frameworks that foster critical thinking, financial literacy, and contextual analysis.

By aligning practical platform experience with pedagogical strategies that challenge assumptions and promote insight, educators can prepare students to become data-savvy marketers capable of navigating an increasingly quantified marketing landscape. The shift from clicks to clarity is not simply about teaching tools—it is about teaching how to think with them.

A future-facing curriculum must also account for ethical, predictive, and privacy-related changes in the metrics landscape. Students should leave with the ability to interrogate data, challenge assumptions, and translate numbers into narratives. Metrics are not the endpoint of marketing—they are its evolving language.

Appendix A: Google Analytics Instruction Manual (Student Guide)

1. Logging into Google Analytics (GA4)

- Visit: <https://analytics.google.com>
- Log in with your Google account.
- Access the provided practice account or set up your own GA4 property.

2. Key Metrics to Understand

- **Users:** Total number of individuals who visited your site.
- **Sessions:** Individual periods of activity from a user.
- **Engagement Rate:** Percentage of sessions that lasted longer than 10 seconds, had a conversion event, or had 2+ pageviews.
- **Bounce Rate:** Percentage of sessions where no interaction occurred (inverse of engagement).
- **CTR (Click-Through Rate):** % of users who clicked on an ad or link.
- **CAC (Customer Acquisition Cost):** Total spend / number of new customers.
- **ROI (Return on Investment):** (Revenue – Cost) / Cost.

3. Setting Goals and Conversions in GA4

- Navigate to Admin > Events > Create New Event.
- Mark the event as a conversion (e.g. sign-up, purchase, download).

4. Creating Reports

- Use Explore > Blank > Create a custom report.
- Choose dimensions (e.g. Source/Medium) and metrics (e.g. Users, Conversions).
- Segment your data by campaign, location, or device type.

5. Common Mistakes to Avoid

- Confusing pageviews with conversions.
- Ignoring source attribution: not all traffic is equal.
- Over-relying on AI-generated insights without context.

Appendix B: Sample Metrics Graphs

1. **Traffic Source Overview Chart** (Example: Pie chart showing breakdown of traffic: 40% Organic, 30% Paid, 20% Social, 10% Direct)
2. **Bounce Rate Comparison Over Time** (Line graph showing bounce rate declining from 68% to 42% across 6 weeks after landing page improvements)
3. **CTR vs. CAC by Campaign** (Bar chart: Campaign A – CTR 5.2%, CAC £12.40; Campaign B – CTR 3.1%, CAC £6.80)

4. **Session Duration vs. Conversion Rate** (Scatter plot showing positive correlation: longer sessions lead to higher conversion rates)

Note: All graphs are illustrative and should be adapted to real student project data in class.

References

- Buckingham Shum, S. and Ferguson, R. (2012) 'Social learning analytics', *Educational Technology & Society*, 15(3), pp. 3–26.
- Chaffey, D. (2020) *Digital Marketing: Strategy, Implementation and Practice*. 7th edn. Harlow: Pearson Education.
- Google (2024) *Google Analytics Help Centre*. Available at: <https://support.google.com/analytics> (Accessed: 9 June 2025).
- Mulhern, F.J. (2009) 'Integrated marketing communications: From media channels to digital connectivity', *Journal of Marketing Communications*, 15(2–3), pp. 85–101.
- Prado, J.C. and Marzal, M.A. (2013) 'Incorporating data literacy into information literacy programs: Core competencies and contents', *Libri*, 63(2), pp. 123–134.
- Tuten, T.L. and Solomon, M.R. (2021) *Social Media Marketing*. 4th edn. London: SAGE.
- Zahay, D. (2015) *Digital Marketing Management: A Handbook for the Current (or Future) CEO*. Chicago: Business Expert Press.

