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Introduction

WHY THIS BOOK?

Many very useful Google Analytics (GA) resources are readily accessible online: Google Analytics Academy, the Google Analytics and Google Tag Manager Solutions Guides, and a broad range of GA-focused blogs, e-books, and tutorials—including those that we produce ourselves—that steadily enrich the conversation and provide real value for learning. Why, then, did we go the extra step and take on the significant task to write a Google Analytics book? Much more importantly, why should you invest your time and energy to read it?

Consolidated Resource for Learning Effectiveness   With millions of GA installations worldwide, the fact remains that only a small percentage of organizations are using GA to anywhere near its full power.

We've worked with hundreds of clients, from start-ups to the Fortune 25, and we've seen the ongoing struggle of marketers to achieve a complete GA implementation for their websites and mobile apps, master the specialized reporting capabilities, optimize their channel attribution, integrate GA data with other data sources, and move from data to insight to performance improvement. The objective of this book is to provide a consolidated and focused learning experience that guides you from potential confusion and frustration to solid understanding and confident action, starting with the core nuts-and-bolts competencies and building to more advanced and future-facing strategies and techniques.

Not the Encyclopedia of Google Analytics   While comprehensive in scope, this book is not designed as a full reference of every GA feature—the Google help articles are there to serve this purpose. Furthermore, much of the GA reporting functionality becomes intuitive as soon as you begin navigating through the reports, so it would not be the best use of space or time to explain what's easy and obvious.

A Focus on What's Difficult and Most Important   To contrast with the previous point, the book does thoroughly cover the fundamentals of measurement strategy, implementation, and reporting, and goes on to focus on the topics that normally present the most challenges and/or typically generate the greatest insight and actionability. We have also endeavored to call out potential sticking points, gotchas, and pitfalls along the way, and especially to warn you where real danger lurks.

Framework for Conversion Optimization, Marketing ROI, and Competitive Advantage   The book is conceived, above all, to help you improve your own key performance indicators (KPIs), such as Ecommerce transactions, lead submissions, or content engagement. With detailed discussions about conversion tracking, including goal and Enhanced Ecommerce funnels, you'll learn how to identify the website or mobile app elements that are helping or hurting your conversion success.

It's not enough, however, to track conversion rates. You must have clean traffic attribution to understand where your success and return on investment (ROI) are coming from, so we devote in-depth discussions to attribution reporting—campaign tracking in particular—and go beyond last-click attribution to identify which traffic sources are providing conversion support prior to the session in which the goal completion or Ecommerce transaction occurs.

When you begin to understand what really is and is not working, analytics has become your long-term competitive advantage. And the time to gain that understanding is in periods of stability; emergency analytics ramp-ups do not usually solve mysteries or relieve crises.

Contributions from Industry Luminaries and Leading Analytics and Optimization Practitioners   We sought out input from world-recognized experts, members of the GA team itself, and practitioners who are doing amazing things in analytics and optimization each day. Their contributions add immeasurably to the learning experience and provide a range and depth of insight and technique that are rarely found within a single resource.

Graphical Format   Since the book is not an encyclopedia, it's not written or designed like one. The many annotated screen shots, color diagrams, and special callouts are included to make the discussions more approachable and, overall, to provide a more interesting and impactful learning experience.

Technical Deep Dives   The previous paragraph notwithstanding, we do not shy away from the technical details where they are needed. Following the advice of Albert Einstein,

we've aimed to make everything as simple as possible, but no simpler. Whether for the event tracking through the Google Tag Manager data layer, the formula for Google page value calculation, or the coding required for Enhanced Ecommerce, we go deep into the concepts and procedures that you need for successful implementation and advanced skill in reporting and analysis.

User Focus, Qualitative Inputs, and Testing   Taking a broader perspective on optimization, we learn techniques for designing and evaluating for user experience, including survey tools, A/B testing, and their integrations into GA.

Specialized Techniques and Advanced Integrations   As the chapters progress, the book discusses many specialized techniques, such as remarketing audience configuration and phone tracking setup, and introduces advanced integrations with CRM, data extraction and visualization tools, and marketing automation.

Your Role as Communicator and Change Agent   Analysis tends to have little organizational impact without clear and effective communication. Throughout the book, we offer insights on streamlined presentation of Google Analytics reporting to clients and internal stakeholders as well as communication and collaboration between the marketing and IT departments for implementation initiatives.

Key Takeaways and Actions   Each chapter concludes with "Key Takeaways" and "Actions and Exercises," so you can review the main points of the chapter and immediately try out the techniques and begin planning broader, longer-term objectives.

Foundation for Ongoing Learning and Achievement   Google is on a fast-paced innovation path. With no doubt, Google Analytics will introduce new capabilities between the time we finished writing and publication date, but the concepts, techniques, and best practices will still be very applicable and will empower you to continue exploring, learning, and taking advantage of the tool's new capabilities. Additionally, the implementation and reporting checklists available and the resource recommendations maintained at `http://www.e-nor.com/gabook` will help keep you up to date.

Even very experienced GA users constantly refine their existing techniques and learn new approaches. This book is designed to build the foundation from which your own analytics skills can evolve and deepen with each measurement challenge and each feature update.

The Benefits of Analytics and Optimization   We've seen first-hand the remarkable improvements that Google Analytics can generate, but these are possible only with a sound implementation, the right reporting know-how, and a long-term commitment to optimization of user experience, marketing ROI, and conversion performance. The book is designed to provide the technical building blocks and inspire the initiative and dedication necessary for ongoing improvement.

WHO SHOULD READ THIS BOOK?

This book is written with the premise that within an organization, Google Analytics should be "owned" by Marketing or a dedicated Analytics/Business Intelligence team rather than by IT. That said, IT support is critical, as many of the Google Analytics implementation steps require close developer involvement.

Thus, while many of the discussions are intended primarily for a marketer or analyst, many others are geared more toward the technical team, or toward the marketer or analyst who needs to understand how data gets into GA and articulate code-level implementation requirements to the technical team. To facilitate this communication, even the more technical discussions are broken down into manageable, understandable steps and concepts.

Product managers, designers, user experience (UX) specialists, content writers, and individuals in various roles at advertising and design agencies can also use this book to learn how GA and the optimization mind-set can help them gain data-driven insights and improve their results.

If you're approaching GA from a data science or broader business intelligence role, the later chapters on data integration and visualization should be particularly relevant.

The book can also serve as an introduction to GA capabilities for managers and executives. With the callouts, guest contributions, illustrations, and key takeaways throughout, the book can provide a good overview of GA, even if the more detailed and technical discussions are skipped.

Regardless of your role, if you're new to GA or have been using GA for some time but have yet to attain the level of proficiency that you want and need, the book can, in fact, provide the blueprint for your own GA breakthrough, taking you beyond the default gaps and usage toward mastery and real effectiveness. If you're already fairly adept with GA, the book will provide a solid review of best practices and surely many new tips and perspectives.

As a related note, the book was not written with the Google Analytics Individual Qualification (GAIQ) in mind, but if you read the book and apply the learning, you should be well equipped to take and pass the exam.

CHAPTER SUMMARY

Chapter 2: Google Analytics Reporting Overview   Before our discussion of measurement strategy and GA implementation in the following chapters, this chapter provides an overview of the Audience and Behavior reports as well as a thorough walk-through of the functionalities that will enable you to take full advantage of the GA reporting interface.

Chapter 3: Measurement Strategy   This chapter discusses measurement strategy as the foundation for your analytics program. We assess your current analytics implementations and evaluate the need for more specialized tracking and reporting. Also reviewed are process and communication challenges, analytics ownership within the enterprise, and a sample measurement plan.

Chapter 4: Account Creation and Tracking Code Installation   Here, we go back to the first steps in GA account creation and map the account/property/view hierarchy. We access the GA tracking code and demonstrate the range of data that is recorded with each pageview hit. We also consider tracking for templated websites and standalone pages.

Chapter 5: Google Tag Manager   After installing the native tracking code in the previous chapter, we switch (for the rest of the book) to a better way for deploying the GA tracking code: Google Tag Manager (GTM). This chapter reviews the advantages of GTM over native deployment and emphasizes three main GTM concepts: container, tags, and triggers.

Chapter 6: Events, Virtual Pageviews, Social Actions, and Errors   As perhaps the biggest gap in a default GA website implementation, user actions that do not cause a page load are not recorded. We address this gap with events and virtual pageview tracking to capture video plays, page scrolls, and multiscreen AJAX processes. We also learn about social tracking and error tracking and take advantage of the GTM data layer.

Chapter 7: Acquisition Reports   Google Analytics does the best job it can in determining where your website traffic comes from, but it needs a great deal of help from you, in the form of campaign parameters, to correctly attribute traffic from email, social, and banner campaigns. We also discuss paid and organic search engine traffic and review Google Search Console as an important complement to GA.

Chapter 8: Goal and Ecommerce Tracking   To populate the Conversions reports, you must tell GA what constitutes a successful session. In this chapter, we walk through goal and funnel setup, clarify the Conversion Rate and Abandonment Rate metrics, and configure Ecommerce and Enhanced Ecommerce tracking to record transactions with product category, tax, and funnels from impression through conversion.

Chapter 9: View Settings, View Filters, and Access Rights   In this chapter, we apply view settings and filters to the raw GA data to remove internal traffic, consolidate URL variations, configure site search tracking, and create specific data subsets based on subdirectory, device, traffic source, or geography. We also review the four types of user permissions and consider governance principles.

Chapter 10: Segments   For much of the analysis we need to perform, aggregation can hide significant data points and hinder insight. In this chapter, we break down our data with segments that map to different audience constituencies and amplify trends, and we define behavioral segments that correlate behaviors such as a page or video view to conversion outcomes.

Chapter 11: Dashboards, Custom Reports, and Intelligence Alerts   Here, we review the easy and flexible dashboard functionality in GA and also cover the automated emailing option for dashboards and reports. We also configure custom reports for more focused analysis and communication, and we set up intelligence alerts to send out proactive notifications for metric fluctuations.

Chapter 12: Implementation Customizations   In this chapter, we configure custom dimensions, custom metrics, and content groupings that allow GA reporting to more closely reflect our own organizations, taxonomies, and end-user experiences. We also set up cross-domain tracking and roll-up for management and executive reporting, and we learn how to track logged-in users across devices.

Chapter 13: Mobile App Measurement   This chapter focuses specifically on app tracking through the Android and iOS software development kits (SDKs) and through Google Tag Manager. We also review campaign tracking for clickthroughs to Google Play and the App Store, and measure app open rate after download. Best practices for GA mobile app account structure are also outlined.

Chapter 14: Google Analytics Integrations—The Power of Together   This chapter reviews the rich AdWords reporting available to you in GA as an advertiser and also discusses AdSense metrics for you as a publisher. We also examine the powerful capability of GA remarketing audiences and consider GA integrations with email and social media platforms.

Chapter 15: Integrating Google Analytics with CRM Data   Here, we step through two approaches to get website source data into customer relationship management (CRM) systems: directly through hidden fields on the lead form, or through importing GA data into the CRM against a common key. This integration will allow us to calculate cost per qualified lead and long-term value for different marketing channels.

Chapter 16: Advanced Reporting and Visualization with Third-Party Tools   Furthering our data integration discussions, this chapter discusses the integration of GA data with other data sources and interactive visualizations in Tableau. We also explore automated export from Google Analytics 360 to BigQuery storage and the role of Analytics Canvas and ShufflePoint as middleware for data extraction and transformation.

Chapter 17: Data Import and Measurement Protocol   This chapter discusses two additional ways to record data into GA: import of content, campaign, and marketing cost data through the admin panel or the GA Management API, and the Measurement Protocol, which allows you send hits to GA from any programmed and networked environment.

Chapter 18: Analytics 360   To address the needs of enterprise installations, Analytics 360 (formerly called GA Premium) offers greatly increased data limits, data freshness, and custom dimensions. This chapter discusses these features as well as unsampled data export, custom funnels, DoubleClick integration, and also service-level agreements and support.

GET STARTED

Now that we have charted the learning objectives and outlined the chapter content, it's time to get started. Take the necessary time, stay focused, try everything out yourself, don't forget to enjoy the learning process, and always keep the end in mind: understanding, mastery, real-world results, and a foundation for ongoing learning and success.

If you need access to a test account, or if you have questions or feedback along the way, don't hesitate to reach out to us at GAbook@e-nor.com.

GUEST SPOT	The Three Masters of Analytics

Jim Sterne

Jim Sterne is the founding president and current board chair of the Digital Analytics Association.

You can't please everybody, but there are three masters whom you need to serve if you are to succeed at analytics:

➤ Whoever Pays the Bills
➤ The Customer
➤ Your Intellectual Curiosity

Validating the Raw Material

For each of these masters, trustworthy data is the cornerstone. *Blindly consuming any analytics tool without a deep understanding of the provenance of the underlying data—or of the inherent gaps in a default implementation—is a surefire way to run right into a brick wall.*

All data is collected in a certain way, cleaned in a certain way, sampled in a certain way, and munged together just so before you ever see the output. It is your underlying responsibility to know where the data comes from and how it's been manipulated before you can get comfortable with others seeing "results." Others in your organization will assume you have this well in hand, and the first time it's discovered that the reports are bad because the data was not validated will be the last time the Three Masters of Analytics will trust you with its interpretation—most importantly, the person with their hands on the purse strings.

Whoever Pays the Bills   Your boss, the VP, the board, the client, the committee; whoever is responsible for funding your technology and human resources must feel they are getting their money's worth.

If they want reports about "hits," then, by golly, you will give them Hits Reports. If they want to know how many uniques there are every month, that's your job. Like it or not. If they have a strong opinion about a specific attribution model, then for good or ill, that will be your top priority.

Make very sure that you have very clear definitions that everybody understands. What do *they* mean by hits, uniques, and attribution? After that, then you can bring in more and more information about things that will actually move the business forward.

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Eventually, you will find colleagues who understand what you are trying to accomplish, and they will become more interested in getting information that will actually be useful to making business decisions.

The Customer   In order to sell more stuff, get more readers, grow your fan base, or convert public opinion, your message must reach those people and persuade them to take appropriate action. Whatever your boss wants or the company prizes, "the customer" is your target audience or user.

Customer satisfaction and usability come into the picture here. Testing, optimizing conversion, and monitoring social interaction are all on your plate. While the reporting goes on apace, your analysis must serve those who are connecting with your customer base and give them the immediate information they need to do their jobs.

Your Intellectual Curiosity   Last, but far from least, is your own innate curiosity. Call it data mining, data diving, or data interrogation, your highest purpose is to derive insights previously hidden. "Gee, that's funny … I wonder," says Isaac Asimov, is more important than knowledge.

Yes, you must put your back into validating the raw material. Yes, you must crank out those reports whether you believe in them or not. Yes, you must support the ongoing A/B split testing teams and landing page optimizers. But if you don't come up with the occasional bright idea or bring some obscure yet actionable observation to the attention of the powers that be, you can be replaced.

Finding tasty tidbits in the data stream is also the only way you can maintain your own interest in the whole process. It's the fun part. It's also what makes the difference between a data plumber and an analyst. The plumber spends an entire career collecting, managing, and reporting on data. The analyst makes it a point to understand the goals of the organization well enough to go fathoming the depths of the data for relevant nuggets. Knowing which goals are the most valuable makes the process exciting. The analyst wonders what other treasures might be hidden in the stream, awaiting discovery.

Whoever pays the bills will keep you supplied with technology and human resources. Happy customers give the budget controller the means to do so. Only you can maintain your interest and draw valuable insights from the data.

I saw the angel in the marble and carved until I set him free.

–Michelangelo