

BUILDING A DIGITAL ANALYTICS ORGANIZATION

Create Value by Integrating Analytical Processes,
Technology, and People into Business Operations

JUDAH PHILLIPS

Praise for *Building a Digital Analytics Organization*

“The allure of Big Data is immense. There is SO MUCH DATA! Yet, data collection does nothing by itself. It actually does financial harm left in the wrong hands. Fix that, and you win. Let Judah show you how to build an organization where Big Data’s primary imperative is to drive Big Action.”

—**Avinash Kaushik**, author of *Web Analytics 2.0* and *Web Analytics: An Hour a Day*

“Without a digital analytics organization, you aren’t optimizing your business, your site, or your app. Reading this book can help you. I just hope you adapt before one of your competitors does.”

—**Bryan Eisenberg**, author of *Call to Action*, *Waiting for Your Cat to Bark*, and *Always Be Testing*, Keynote Speaker, Cofounder of the Digital Analytics Association, and Publisher of UseTheData.

“Since founding Gomez 15 years ago, I’ve had the privilege of working with many pioneers in the field of web site and e-commerce excellence. I am impressed with the managerial principles and analytical techniques Judah has developed and presented in this book. A must read for the 21st century analyst and executive who wants to learn how to create value and deliver excellence with digital analytics.”

—**Julio Gomez**, Founder of Gomez, Inc., General Manager at Attivio

“Before ‘Big Data’ and ‘Data Science’ became buzz words, Judah was extracting actionable insights from immense data sets and revolutionizing the field of business analytics. Unfortunately, the digital version of his nerdy brain is still too big for a download, so reading and internalizing this book is the second best option for anyone interested in improving their business via an intelligent approach to data and analytics.”

—**Yaakov Kimelfeld**, Ph.D., Chief Research Officer of Compete

“Among the most valuable things you’ll find in Judah’s book is his experience. *Building a Digital Analytics Organization* is packed with real-life guidance and wisdom from his years of work as a practitioner and manager in the analytics field. From defining measurement needs, to analyzing data, to comparing analytics tools, Judah has done just about everything. We can all put his experience to use as a guide as we build out our own analytics organizations.”

—**Justin Cutroni**, author of *Google Analytics*, Analytics Evangelist at Google.

“Judah writes about enterprise analytics from a deep operational understanding, rather than from solely a research perspective. His erudite observations are both unique and most valuable to those building new or evolving an existing data-driven organization. A must read.”

—**Rand Schulman**, Cofounder of Digital Analytics Association, Managing Partner of Efectyv Digital, pioneer in digital marketing and new media

“This excellent book is a practical guide to help business practitioners make better decisions based on digital analytics. There couldn’t be a better time for this book as data-driven decision making is a core skill for successful business executives, managers, and practitioners alike.”

—**Raj Aggarwal**, Founder and CEO of Localytics

“Competing online today demands competency around measuring and optimizing customer behavior, and this useful book takes a practical look at the latest practices for digital analytics and data science.”

—**Eric J. Hansen**, CEO of SiteSpect

“Every organization today needs to be data-driven. Judah has been at the forefront of the digital analytics discipline for many years, and one of his primary strengths is his ability to communicate technology requirements to the business in a way that’s actionable. This book should become an essential part of every digital marketer’s toolkit.”

—**Andrew Edwards**, Cofounder of the Digital Analytics Association, Managing Partner of Efectyv Digital

“Judah Phillips delivers an enlightening and practical guide to building your digital analytics organization that will help any reader derive more value from their analytics.”

—**Larry Freed**, CEO of Foresee Results, author of *Managing Forward: How to Move from Measuring the Past to Managing the Future*

“In this book Judah provides a clear and compelling explanation of the power of digital analytics. This book is a great read for everyone seeking to harness digital data intelligence and maximize its business value.”

—**Jean Paul Isson**, co-author of *Win with Advance Business Analytics: Creating Business Value from Your Data*, Global Vice President Predictive Analytics & BI at Monster Worldwide, Inc.

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Create Value by Integrating
Analytical Processes, Technology,
and People into
Business Operations

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*To the loves of my life, Elizabeth and Lilah;
Steven and Elyse for always believing in me;
and to every analytics professional who has ever
wondered what they got themselves into.*

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Foreword

The disciplines for managing information and information technology have grown up over more than half a century. Computing and programming had been largely academic activities in the early days, but these disciplines transformed the field into a true profession. When corporations first applied “data processing” approaches to financial and other forms of internal information, they introduced formal processes and structures to a previously unstructured field. Operators in computer centers often wore white coats to signify their professional and scientific focus. The high level of formality may have been misplaced, but it allowed information management for structured, internal information to eventually be mastered and to flourish as a field.

Over the past decade, an entirely new era in information management has emerged. It’s the product of the Internet—digital data coming from the Web, email, online content, mobile devices, millions of apps, and increasingly the “Internet of things.” Like the earliest computing efforts, the management of digital data began as a casual, “hobbyist” activity. Companies often had a part-time “Web guy” to design, install, and maintain a website. There was very little measurement of digital activity, and loose management in other respects as well. Some large and respected companies had frequent website outages and sometimes even allowed their domain name registrations to lapse.

This book, however, is clear evidence that the management of digital data is growing up. A key function of the management of any resource is analytics—establishing metrics, reporting on them, and prediction and optimization of key variables. There has been talk of Web or digital analytics for a number of years, but until recently it was not a serious effort for most firms. Web analytics consisted largely of counting unique visitors or page views, and was again often undertaken by part-time staff.

A rigorous, professional approach to digital analytics requires the types of management approaches that are laid out in this book. You need more than part-time people. You need careful thinking about what your metrics and Key Performance Indicators (KPIs) are. You need to move beyond reporting into prediction, optimization, and rigorous testing. Judah Phillips has been an advocate of these serious disciplines for a long time, but now the world is ready to adopt them—and the book comes along just in time.

There are plenty of books on Web analytics, but I think this one is distinctive in a number of ways. One is that it is broader than Web analytics, treating the areas of social media, mobile, behavioral targeting, and other sources of digital data. Most companies would be well advised to take a more expansive view of digital analytics than just clickstreams on the Web.

Second, this book brings into the digital analytics space a sophistication in both data management and data analysis that is not often found in Web analytics sources. On the management side, it addresses topics like how to staff a digital analytics function, how to think about data governance in this environment, and the relationship between the digital analytics group and others in the organization who are working on other types of analytics. Something like data governance may not appeal to hobbyists, but it's essential for a mature corporate information environment.

On the data analysis front, I am very happy to see that Phillips brings in some of the best classical thinking on data analysis. I have always thought that John Tukey's ideas on "exploratory data analysis" (EDA) were a great way to get close to your data and understand its basic parameters, but you seldom see the idea in recent writing on analytics of any type. So I was very happy to see a section on EDA in this book; it's a great technique for exploration of digital data.

Someday, I suspect, we will have analytics organizations that can address all types of data—the digital types covered in this book, and other data about customers, finances, and operations that are normally addressed in business analytics functions. This book is a great step toward that integration, because—unlike many Web analytics books—it doesn't assume that digital analytics are the only type, and it encourages many of the same principles and approaches used by the business analytics movement. Encouraging readers to go beyond reporting into predictive analytics and testing is exactly what I have done in my own writing, for example. So it is nice to read that a similar convergence is taking place from the digital analytics side of the house.

So read this excellent book from a man who knows whereof he speaks. He has done this sort of work as a consultant and as a head of digital analytics in mostly online firms (Monster.com and Karmaloop), and mostly offline firms (Nokia and Reed Elsevier). If you put the ideas in the book into action within your organization, you will be well ahead of most others, and your leading-edge work will undoubtedly propel your career to stratospheric heights. Someday you may even wear a white coat as a "Doctor of Digital Analytics"!

Thomas H. Davenport
Professor at Harvard Business School and Babson College
Cofounder of the International Institute for Analytics

Acknowledgments

I realized a couple years ago that most people I met had no idea what I did for work—even when I told them my job title. Of those who did understand what I was doing, it was because they likely worked in the Internet industry. But few people I met had any experience doing my job, which was running a digital analytics organization. At one time, I think I was one of only a handful of analytics practitioners who worked for a brand and managed people who did digital analysis and combined it with traditional analytics. Certainly, there were analytics teams in brands and in agencies and consultancies, but there were few practitioners who had the opportunity to manage centralized business analytics teams in globally distributed companies with accountability for technology, the people, the process, and overall analytical deliverables. Actually, only several years ago, I could count on one hand the number of people who had both built from scratch or inherited analytics teams that concentrated solely on understanding digital behavior and using the data to drive both strategic and tactical decision making. Few had run analytics in both private and publicly traded companies reporting to senior executives (that is, C-level executives) where the data could not risk being “wrong” because the markets could act on it—and the stakeholders (and shareholders) had high expectations. I realized in these complex and often highly matrixed environments that there was a right way and a wrong way to build a digital analytics organization. The right way and the wrong way was nuanced, but it was similar whether the company was building an analytics team from the ground-up or if the company already had “baggage” from previous attempts at analytics.

When I began building analytics teams in brands, little precedent existed from people who had done similar work before, so my peers and I figured out how to do the job and how to succeed in the work. My philosophy when orchestrating analytical activities and building teams was that the work needed to be focused on helping the business either reduce costs or increase profitable revenue. That way, if analytics could help impact the top or bottom line, the team would be secure in its role and employment. It sometimes worked that way, and other times, externalities, such as the Great Recession, got in the way.

Along the course of my career in analytics, I’ve self-developed a practitioner’s perspective on how to execute analytics in organizations. Many people over the years asked me, “When are you going to write a book?” and, encouraged by a few people in 2012, I decided to write this one. What you have in your hands is the result. This book provides a useful handbook for analysts, managers, and executives at all levels in all industries to learn the organizational aspects of digital analytics, to understand and appreciate the

process of analytics, the necessity of analytics teams, and the importance of applying rigorous analytical techniques and methods to accurate digital data. You can gain additional knowledge and an appreciation for reporting, KPIs, data governance, and how market research, qualitative data, and other types of competitive and business intelligence data and technology enhance analytics and analytical decision making. I hope that you find value in the content of the book and use my perspectives to help contextualize and inform your own decision making at your companies—as I have leveraged the perspectives of others in my career.

Writing a book is never an easy task. It takes not only considerable time and effort, but it also requires saying something that has to be unique, real, and true. For a business book, what is written also must be relevant, helpful, and useful to people employed in the profession. This book is all those things and more. And it was only possible for me to author because of the knowledge and perspectives I've gained during the course of my career from working, collaborating, and befriending among the smartest and most talented people working with the Internet and analytics today, including but not limited to the following people:

Jesse Harriott, Thomas Davenport, J.P. Isson, Ben Green, Frank Faubert, Nate Treloar, Enno Becker, Julio Gomez, Akin Arikan, Jonathan Mendez, Raj Aggarwal, Joel Rubinson, Justin Cutroni, Jonathan Corbin, Rand Schulman, Eric T. Peterson, Steven J. Mills, David Mahoney, Sean Keaveny, Chris Boyle, Jim Sterne, Gary Angel, Bob Page, Bryan Eisenberg, Andreas Cohen, Jeffrey Eisenberg, June Dershwitz, Joe Stanhope, Jeff Quinn, Ellen Julian, Nikolay Gradinarov, Kounandi Couliably, Kurt Gray, Abby Mehta, Lauren Moores, Rand Schulman, Bill Gassman, Matt Cutler, David Cancel, Andrew and Luchy Edwards, Keith Lehman, Thomas Boselivac, Stan Ingerston, Brian Suthoff, Mark Gryska, Brian Induni, Seth Romanow, Alex Yoder, Frank Faubert, Gary Angel, Aaron Bird, Josh James, Alex Yoder, Casey Carey, Jascha Kaykas-Wolff, Scott Ernst, Yaakov Kimelfeldt, Andy Fisher, David Churbuck, Brett House, Brooks Bell, Matt Finlay, Ian Houston, Avinash Kaushik, Yaakov Kimelfeld, Larry Freed, Eric Hansen, Kim Ann King, Ali Benham, Josh Chasin, Yuchun Lee, Kevin Cavanaugh, Ken and Ross Fadner and the [Mediapost.com/OMMA](http://mediapost.com/OMMA) team, the members of the Analytics Research Organization (ARO), the people who support Digital Analytics Thursdays (DAT), eTail, I-COM, eMetrics, the Digital Analytics Association and the Boston Local Chapter, and finally, Jeanne Glasser-Levine and Tim Moore and their staff and colleagues at Pearson.

About the Author

Judah Phillips specializes in helping people create economic value using data, analytics, and research. He works with leading global companies whose executive and management teams are building, adapting, or reengineering their approach to digital analysis in order to increase profitable revenue, reduce cost, and boost profitability. Phillips has managed global business and digital analytics teams including Sun Microsystems (now Oracle), Reed Elsevier, Monster Worldwide, Nokia, and Karmaloop.

Phillips founded and globalized Digital Analytics Thursdays (DAT) and launched the Analytics Research Organization (ARO). He serves or has served on the advisory boards to several companies, including YieldBot, Localytics, and Webtrends. Phillips speaks at technology and Internet industry events and guest lectures at top universities and business schools worldwide. He lives in Boston and holds an MBA and MS.

1

Using Digital Analytics to Create Business Value

Today's business organizations must apply analytics to create new and incremental value. A significant and important source of analytical data in 2013 is digital experiences—from websites to social networks to mobile applications and more. Thus, it is critical in today's economy for businesses to develop and enhance their understanding of how digital data is collected and analyzed to either or both generate new or incremental profitable revenue or reduce cost.

Although digital analytics can significantly maximize profits in today's competitive global markets regardless of sector or industry, creating and staffing a fully functional digital analytics organization is a complex and multifaceted initiative. Building a digital analytics organization requires rethinking and reengineering the people, processes, and technology used for creating analysis. After all, many companies believe digital analytics is about tools and technology (and data collection, like “tagging”). That belief is not accurate. While the technology and tools that support analysis are critical and necessary, they are insufficient by themselves in creating business value. Simply adding a standard basic JavaScript page tag for a free Web analytics tool to your digital experiences and providing access to reports does not create data-driven decision making or easily yield insights. Some companies believe that to be “data-driven,” they simply need to provide self-service access to business intelligence (BI) tools that provide department-specific reports and dashboards—or the basic, vanilla reporting in free or paid analytics tools.

Both these approaches are helpful to some degree and certainly move the firm toward building a digital analytics organization that considers analyses as part of the decision-making process—both strategic and tactic. After all, providing the business with the tools that collect and report data is, as previously mentioned, definitely critical and absolutely necessary. But tools and reporting are only part of digital analytics operations. Technical work and tool activities, whether used by themselves or together, are entirely insufficient for creating sustained business value through the application of digital data in business context. In other words, all the technology, servers, tagging, and tools can help you count and measure all sorts of digital metrics and dimensions, but do not by themselves (or even with the default installation) provide for any inherent actionability or impact directly delivering business value. The value from analytics is created by humans—alongside machines, tools, and technologies—analyzing data to provide insights and answers to business questions and within established and sustained business processes.

Digital analytics teams enable fact-based decision making and measure the performance and profitability of digital business channels. Data from the digital channel enhances offline data—and the combination of both (called *data integration*) can yield new insights and opportunities. If your company isn't forming a team of analysts to address its digital data—whether you have big data or not—then it's operating at a competitive disadvantage. A lack of data analysis leads to missing enormous business opportunities. A well-resourced, funded, process-oriented digital analytics team backed up by cross-functional teams from IT to marketing to finance can help your business in many ways—from determining ways to reduce costs, improve efficiency, generate new and incremental revenue, improve customer satisfaction, and boost the profitability and impact of the digital business channel. To understand what is involved with digital analytics from the beginning to the end to the beginning of the next project, see Chapter 2, “Analytics Value Chain and the P's of Digital Analytics.” Before discussing these concepts, let's dig deeper into what composes digital analytics, the digital analytics organization, and how establishing and evolving deep competency in digital analysis now can bring immediate and future value to the corporation.

Big Data and Data Science Requires Digital Analytics

The need for a digital analytics organization is greater than ever before—for the amount of data available to apply toward solving a business challenge is more numerous and multivariate than at any time in human history. IBM estimates that humanity creates 2.4 quintillion bytes (quintillion is one billion billion) of data every day (see Figure 1.1)—so much that *90 percent* of the data in the world today has been created in the last two years alone. Obviously, much of this new data is being created by digital systems or systems linked to the Internet. Because the multitude of digital data is growing exponentially every day, a digital analytics organization is absolutely necessary to generate insights, recommendations, optimizations, predictions, and profits from this data. Whether big data, data science, omnichannel data, media mix modeling, attribution, audience intelligence, customer profiling, or predictive analytics from the applied analysis of digital data, it is essential to create a team accountable and responsible for digital data analysis. This analysis can be used for decision making, business planning, performance measurement, Key Performance Indicator (KPI) reporting, merchandising, prediction, automation, targeting, and optimization. As you read this book, you can learn how to lay solid foundations for building a successful digital analytics organization to make sense of and value from digital data analysis.

24,000,000,000,000,000,000 bytes per day

Figure 1.1 Humanity creates 2.4 quintillion bytes of data every day. That's the number above: 24 billion billion bytes per day.

The volume of the data being created right now and that will be created in the future is, of course, staggering even beyond IBM's estimates. International Data Corporation (IDC) projects that the digital universe will double in size through 2020 and reach 40 ZB (zetabytes), which means 5,247 GB for every person on Earth in 2020. The behavioral data—call it the *digital behavioral universe* currently being and going to be created from the clickstream and the digital footprints of every person across Earth interacting, participating, and behaving

with this data—means that exponentially more behavioral data will be created on top of the predicted 40 ZB digital universe in 2020 (see Figure 1.2). Data collected about the human behavior, transactions, and metadata may be many multiples of the size of the site content. In other words, if the average size of a web page in 2013 is approximately 1.4 MB, then the behavioral and transactional data and metadata collected about visitors during their visits could be many hundred megabytes or more—especially when considering data integration from both internal and external data sources, such as advertising, audience, and Customer Relationship Management (CRM) data. The future of analytics will be enabled by innovation on top of all this big data created digitally from websites, mobile sites, social media, advertising, and any other Internet-enabled experience—from interactive TV and billboards to set-top boxes to video game consoles to Internet-enabled appliances to the mobile ecosystem and world of apps.

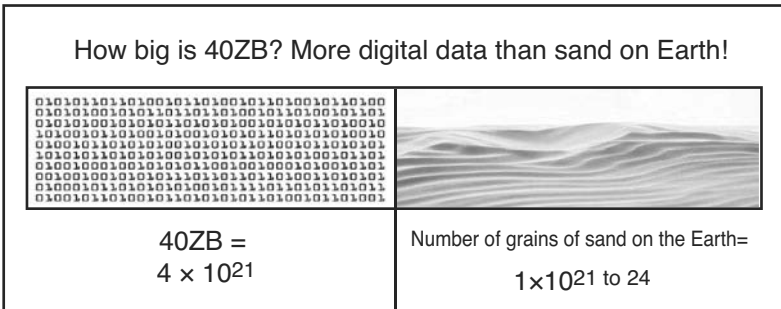


Figure 1.2 It is estimated that by 2020, there could be four times more digital data than all the grains of sand on Earth.

Source: IDC and Wolfram Alpha

According to the Pew Research Center's Internet & American Life Project, during 2012 in the United States (US), more than:

- 59 percent of people used a search engine to find information and send email.
- 48 percent used a social network such as Facebook, LinkedIn, or Google Plus.
- 45 percent got news online, whereas 45 percent went online just for fun and to pass the time.
- 35 percent looked for information such as checking a hobby or interest.

Actually, the United Nations claims that more people on Earth have access to mobile phones than restrooms. Six billion of the world's 7 billion people have access to mobile phones. Only 4.5 billion people have access to working restrooms. Meanwhile, 2.5 billion people don't have proper sanitation. *Big data* created from mobile devices is more common than the global infrastructure used for human sanitation.

The volume of digital analytics data being collected about online behavior is already being tapped and mined in 2013 (see Figure 1.3); however, the promise of digital analytics remains still largely unrealized and not demystified. EMC estimates that the majority of new data is largely untagged, file-based, and unstructured data, which means little is known about it. Only 3 percent of the data being created today is useful for analyses, whereas only .05 percent of that data is actually being analyzed. Thus, 99.95 percent of useful data available today for analysis is not being analyzed (see Figure 1.4). By 2020, IDC estimates a 67 percent increase in data available for analysis.

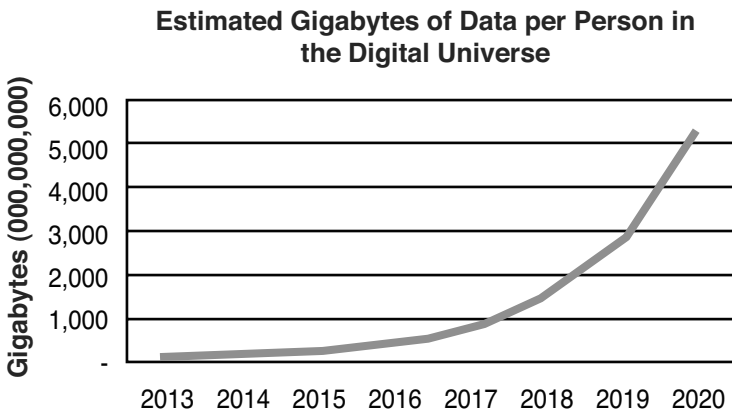


Figure 1.3 Growth in digital data per person.

Source: IDC

Without a digital analytics organization firmly in place, a business will not be able to take advantage of the opportunity in digital data analysis that has resulted from all this data now and the huge surge of audience, media, and consumer data in the future. A business, of course, can only create competitive advantage with data if they can hire talented people who have digital analytics skills. Right now, a huge gap also exists in talented people to analyze and create insights from the data, which is an obstacle to staffing digital analytics

teams. As a result of all the big data in the public and private sector, McKinsey estimates that 1,500,000 more “data-savvy” managers (who can understand and use analysis) and 140,000–190,000 new roles for analytical talent are needed to support the growth in big data in the future. The digital analyst and the digital analytics team needed to make sense of all this new data rarely exists and certainly not in sufficient quantities to create value from current and future big data. Actually, the industry faces an acute shortage and huge gap of the talent and technology needed to tag and analyze digital data even though analytical jobs are top-paying, high wage jobs.

It can take months to find a talented digital analyst and even longer to find managers and other analytical business leaders. This fact is precisely why this book can help you and your business determine how to manage and succeed with digital analytics while minding the gap in analytics talent. The need for building your own digital analytics organization is totally real, because you certainly can’t easily or quickly hire even a single analyst and rarely a talented manager and never an entire team of analysts in one shot. This book tells you what you need to know right now to get started building your own digital analytics organization and/or what you can do to take your existing digital analytics organization to the next level.

This business book is as much about building a digital analytics team as it is about building a digital analytics organization. The team exists within the organization, and the organization exists within the business. Thus, this book is about much more than digital analytics. This business book is a truly one-of-a-kind text, derived from real-world, practitioner experience that is about understanding what is truly necessary to create, manage, win, and succeed with digital analytics, while focusing on analytical ideas, methods, and frameworks for generating sustainable business and shareholder value.

Defining Digital Analytics

But what is digital analytics? *Digital analytics* is the current phrase for describing a set of business and technical activities that define, create, collect, verify, or transform digital data into reporting, research,

analysis, optimizations, predictions, automations, and insights that create business value.

The activity of digital analysis, at the highest and best application, helps companies increase revenue or reduce cost. The activities performed in digital analytics require coordinating processes, people, and technology internally within a company and externally from partners and vendors to produce analysis that answers business questions, makes recommendations based on mathematically and statistically rigorous methods, and informs successful business activities across many functions from sales to marketing to management.

Digital analytics can help a business in many ways. The two goals for the highest and best usage of analytics are to create value by 1) generating profitable revenue, and 2) reducing cost. The McKinsey Global Institute (MGI) claims that a 60 percent increase in retailers' operating margins are possible with big data, whereas just location-based big data has the potential to create a \$600 billion market annually. The opportunity to generate commerce in an ethical and productive way is possible with digital data, but how does a person, a business, and a global enterprise get there? The answers are in this book with comments on the activities critical and necessary to analyze data, from the technical and process work (requirements/questions, data collection, definition, extraction, transformation, verification, and tool configuration) to the analytical methods to apply to data in order to analyze, report, and dashboard it. By bringing together data from different systems to create cohesive and relevant analysis, you can understand how digital data and analytics can be used to answer business questions and provide a foundation for fact-based decisions.

This book explains how to build and manage digital analytics teams to tell “data stories” based on answering “business questions” asked to the analytics team by stakeholders. The analytical insights in these answers can provide recommendations and data-oriented guidance to management that helps make their company money. Digital analysts, the people on the digital analytics team, are able to navigate effectively the upstream technical and downstream social and organization processes inherent in executing a data-driven communication function via processes that unify teams across technology and the business. If that last sentence is hard to deconstruct or if it makes perfect sense, read on because this book covers the following topics:

- The fundamental building blocks to understanding and creating processes for digital analytics, called the *Analytics Value Chain*. The Analytics Value Chain is a new concept I created for describing the process and work necessary for tactical and strategic success with digital analytics. The Analytics Value Chain starts with understanding business requirements and questions, to defining and collecting data, to verifying, reporting, and communicating analytics to the next steps of optimizing, predicting, and automating from digital data using data sciences. The goal of the value chain is, of course, the creation of economic value from digital analytics.
- The P's of digital analytics: people, pre-engagement, planning, platform, process, production, pronouncement, prediction, and profit
- Business considerations when justifying investment in the analytics team, and how to propose an investment consideration for funding the creation or enhancement of a digital analytics team and its operations
- Creating tactical and strategic goals for the analytics team and the responsibilities of the team
- Buying or building analytics tools and what it takes to succeed with tool deployment and maintenance, including discussions about social media and mobile analytics tools
- The importance of storytelling with analytics and using Exploratory Data Analytics (EDA) to understand digital analytics data
- Applied analytics techniques, as a go-to reference for the types and shapes of data, including a business-focused review of basic statistics such as the mean, median, standard deviation, and variance and other more advanced statistical concepts
- A review of data visualization techniques, such as plotting data, histograms, and other charts and visualizations
- Analysis of digital data for a businessperson: data correlation, and linear and logistic regression
- Good ideas and best practices when experimenting with data, sampling data, and building data models
- How digital analytics fits into other analytics, research fields, and qualitative disciplines such as competitive intelligence, market research, and Voice of Customer (VoC) data

- Data governance and the role of defining, collecting, testing, verifying, and managing changes to data, analysis, and reporting and how the Data Governance team plays a critical role
- How to set up a digital optimization program; a review of optimization using digital data with A/B (champion/challenger) and multivariate testing, while reviewing the statistical and mathematical models behind optimization and optimization engines, such as Taguchi and Choice modeling
- An overview of common and popular KPIs used by consultants, brands, and practitioners—and a review of useful ways to get started creating and extending your KPIs
- The importance of reporting and analysis and the difference between them, including RASTA dashboarding (**R**elevant, **A**ccurately actionable answering, **S**imply structured and specific, **T**imely, **A**nnnotated, and commented) and LIVES reporting (**L**inked, **I**nteractive, **V**isually-driven, **E**cheloned, and **S**trategic)
- The use of digital data for the many types of targeting—from geographic to cookie to behavioral and more
- A discussion of omnichannel data and the convergence and integration of data from multiple channels for understanding the customer, media, audiences, and for creating addressable advertising solutions using digital data
- The future of analytics from interacting with data in customer experiences to using sense and respond technologies for customer interacting and alerting to perceptual analytics
- The Analytical Economy and the importance of consumer and customer privacy and ethics within all facets of digital analytics now and into the future

Another Reason to Build a Digital Analytics Organization

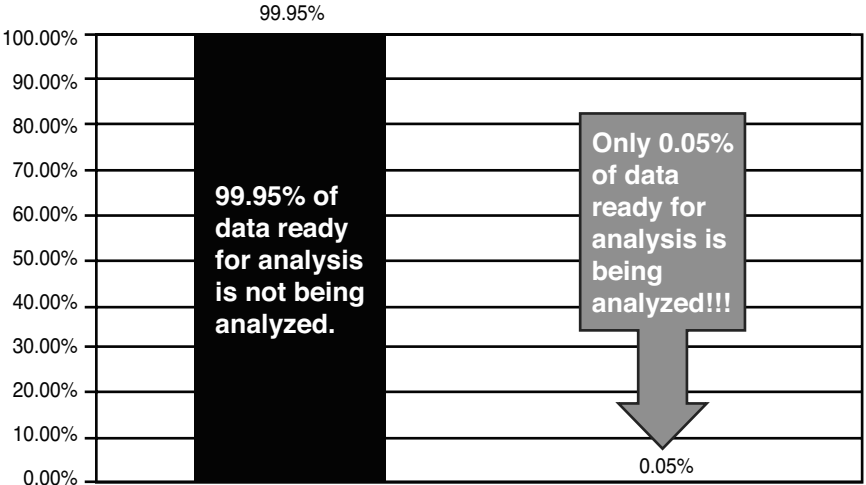


Figure 1.4 The opportunity to create value exists in the 99.95 percent of data available for analysis that is not being analyzed.

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