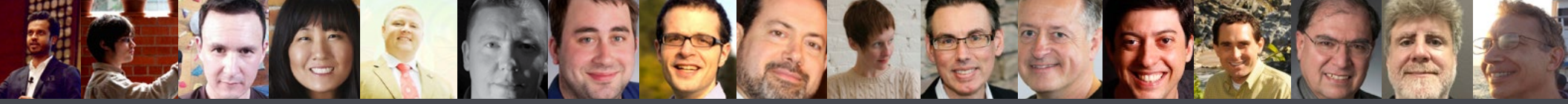

Data *Disruption*

Secrets for Applying Big Data Analytics

Quotes from 33 Experts

Mighty Guides

TABLE OF CONTENTS

Introduction **3**

Business Change

Cycles of Innovation Are Becoming Shorter 5
All Business Is Becoming Customer Centric 6
Connecting the Dots 7
Distributed Human Processing 8
Superfast Data Processing Makes People Better at What They Do 9
Disruption is Part of Advancement 10
Data: A Compulsory Obsession 11
Many Organizations Aren't Sure How to Use Fast Data Technology - Yet 12

Technology Platforms

Higher Processing Speed at Lower Cost is Changing Everything 13
A Data River Runs Through It 14
Big Data Wins 15
There Is No Free Lunch 16
The Doors of Perception 17
The Future Demands Technological Muscle 18
Dream Bigger 19

Industry Examples

An Automotive Revolution 20
Public Uses of Private Data 21
The New Gold 22
The Revolution Will Be Visualized 23
The Big-Data Hammer 24
Retail Is Becoming an Analytics Driven Business 25
The Role of Data in Global Trading 26

Research

The Age of More Open Data 27
Traditional Businesses Are Turning into Data Brokers 28
The Power of Data Driven Science 29
What-If 30

Marketing

Data Can Tell Many Stories, If You Know How to Look At It 31
Using Advanced Analytics for High-Performance Internet Brand Advertising 32
The Customer Journey 33
The End of Demographics 34
Analytics Is the Key to Getting Started 35
The Value of Creating a Data-Driven Marketing Organization 36
The Four Ms 37
Four Steps to Better Data-Driven Marketing 38

About Mighty Guides **39**

INTRODUCTION

It is impossible to ignore the fact that we live in a data-driven civilization. Not only is the amount of data in the world doubling every two years, but the percentage of these data that are becoming valuable because of advanced analytics is also growing. The entire field of data capture and analysis is evolving so rapidly that organizations have difficulty keeping up. Yet data-driven business processes, competition, and the rewards of faster and more intelligent operations leave us with no other choice.

For a long time, our ability to capture data outpaced our ability to process it. This meant that large quantities of data were stored in data warehouses until some future time when tools would be available to find value in them or until they were discarded all together. Several things have happened in recent years to change this dynamic. One is the exponential growth in data; the other is the emergence of new platforms and technologies that make it possible to process data sets of almost unlimited size economically while lowering the cost and increasing the speed of analysis. These elements, combined with new analytic techniques and a growing use of machine learning to accelerate analytic methods, is changing almost every aspect of our lives.

To gain a fuller understanding of how modern analytical methods are being used in visible and not-so-visible ways, we approached data analytics experts from many fields and industries. I asked them to contribute essays about their experiences applying big data analytics. This e-book is a compilation of those essays. In it you will find discussions about new analytics technologies, how organizations can more effectively use their data assets, and many interesting use cases. The essays have been grouped into five sections:

- **Business Change.** Essays in this section speak to how advanced analytics are changing the way businesses operate. It is much more than a story about increased productivity and efficiency: it is a story about the complete transformation of traditional business models into something new and totally data driven.
- **Technology Platforms.** Essays in this section take a closer look at some of the tools and platforms that are making advanced analytics economical for organizations of all sizes.

INTRODUCTION

- **Industry Examples.** This section continues the discussion of transformative analytics technologies in the context of specific business and public-sector use cases.
- **Research.** This section focuses on how new-age analytics are changing the way scientists are conducting research and how they are speeding knowledge acquisition.
- **Marketing.** This section focusses on advanced, analytics-driven marketing strategies and techniques. These techniques are being used for everything from brand marketing to personalization to public relations to attribution techniques that enable companies to analyze their most effective marketing activities in real time.

It is my hope that assembling knowledgeable insights and experiences from so many different perspectives will provide a valuable glimpse into this rapidly evolving technology. I have found many of these essays both eye-opening and thought provoking. There is no question that advanced analytics will continue to play an increasingly important role in business, government, health care, knowledge acquisition, and a broad spectrum of human endeavor.

All the best,
David Rogelberg
Publisher

Mighty Guides

Mighty Guides make you stronger.

These authoritative and diverse guides provide a full view of a topic. They help you explore, compare, and contrast a variety of viewpoints so that you can determine what will work best for you. Reading a Mighty Guide is kind of like having your own team of experts. Each heartfelt and sincere piece of advice in this guide sits right next to the contributor's name, biography, and links so that you can learn more about their work. This background information gives you the proper context for each expert's independent perspective.

Credible advice from top experts helps you make strong decisions. Strong decisions make you mighty.

© 2015 Mighty Guides, Inc. I 62 Nassau Drive I Great Neck, NY 11021 I 516 360 2622 I www.mightyguides.com

RANDY BEAN

CEO/Managing Partner,
NewVantage Partners

Twitter | Website

> “Big data analytics tools provide an analytical sandbox that enables business innovators to fail faster, fail better.”

Traditional approaches to the kinds of disruptive change that big data analytics enables, such as resisting the change and protecting the franchise, are not effective in a digital economy. By adding big data and modern analytics tools, businesses can rapidly process vast quantities of structured and unstructured data, enabling faster market response and innovation.

Want to read more?

Download the full eBook Free >

About the Author: Randy Bean is CEO and managing partner of NewVantage Partners, a management consulting firm that he co-founded in 2001. He is a recognized industry thought leader and writes a monthly column on big data for *The Wall Street Journal*. Randy is a contributor to the *MIT Sloan Management Review* and *Harvard Business Review*. Randy holds a B.A. degree from Washington University in St. Louis, Missouri.

SVEN DENECKEN

SAP Global Vice President,
Co-Innovation and Strategy
SAP S/4HANA,
SAP SE

Twitter I Website

> “Some traditional asset-centric businesses are turning into service-oriented businesses.”

Improvements in four key areas—customer-centricity, operational excellence, global networking, and rapid innovation—give organizations the ability to collect and analyze large amounts of relevant data rapidly so that they can operate in ways they never have before. By exploring large data streams and engaging in analytical sandboxing, businesses can test and adopt strategies to meet the demands of their customers more quickly and effectively.

Want to read more?

Download the full eBook Free >

About the Author: Sven Denecken is the global vice president for Co-Innovation and Strategy at SAP SE, where he assesses customer and market requirements and supports SAP´s strategy. Through Co-Innovation projects, Sven uncovers key trends and best practices in the application of new technologies. Working with his teams, he supports alignment with customers, the ecosystem, and SAP´s field organization. Through Co-Innovation, he works to facilitate and enable sustainable relationships among SAP, customers, industries, and partners.

MARSHALL SPONDER

Lecturer,
Zicklin School of Business
CEO, WebMetricsGuru INC,
WebMetricsGuru INC

Twitter | Website | Blog

> "Taking it back to the world of superfast in-memory computing - you cannot afford *not* to know what is going on in this space."

Superfast, in-memory computing is transforming the competitive landscape. Companies like Uber and technologies such as auto-driving cars and rich media generate and rely on massive amounts of data. The smart business leader need only pay attention to create a business model to take advantage of the disruptions.

Want to read more?

Download the full eBook Free >

About the Author: For more than a decade, Marshall Sponder has influenced the development of the digital analytics industry with his WebMetricsGuru writings, which focus on social media metrics, analytics, and media convergence. Marshall teaches Web Intelligence at Rutgers University and the Zicklin School of Business, where he is a faculty lecturer. He is the author of *Social Media Analytics: Effective Tools for Building, Interpreting, and Using Metrics* (McGraw-Hill, 2011); he is currently working on his second textbook on Digital Analytics for Marketers to be published by Routledge in late 2017.

SATYEN SANGANI

CEO, Co-founder,
Alation

Twitter | Website | Blog

> “Arm people not only with data but also information about how to use those data.”

Compute and storage are two orders of magnitude cheaper than they were 10 years ago. As a consequence, we now collect and analyze an unprecedented array of data forms; data, too, are unconstrained. So, where is today’s bottleneck? It’s within the line-of-business workers. To overcome this bottleneck, organizations must tap into the power of distributed human processing.

Want to read more?

Download the full eBook Free >

About the Author: Satyen Sangani is the CEO of Alation. Before Alation, Satyen spent nearly a decade at Oracle, ultimately running the Financial Services Warehousing and Performance Management business, where he helped customers get insights into their systems. Prior to Oracle, Satyen was an associate with the Texas Pacific Group and an analyst with Morgan Stanley & Co. He holds a master’s degree from the University of Oxford and a bachelor’s degree from Columbia College, both in economics.

QUENTIN CLARK

Chief Technology Officer,
Member of the SAP SE Global Managing Board,
SAP

Twitter I Website

> “Analytics models applied to large amounts of granular data that are processed instantly make people in decision-making roles better decision makers.”

Humans can no longer keep up with the information flow on our planet. With analytics models that make sense of massive amounts of data, however, it becomes possible to go from high-level views of a process, drill down to the minutest details in real time, and build analytical models into that view to give it meaning. So, the applications make their users smarter and enable them to make better choices.

Want to read more?

Download the full eBook Free >

About the Author: Quentin Clark is responsible for driving SAP’s technology vision and leading the company’s efforts to build and innovate world-class products that affect people, organizations, and customers. With more than 20 years of enterprise experience, he has been instrumental in developing and driving product strategy as well as leading industry-disruptive product launches. Before SAP, Quentin held various leadership positions at Microsoft, most recently overseeing product development for its entire suite of data products.

KIRK BORNE

Principal Data Scientist ,
Booz Allen Hamilton

Twitter | Website | Blog

> “You want fast data collection and storage with superfast processing so that you can get immediate benefit from the data you are analyzing.”

The willingness to share resources and data will be beneficial to organizations, but people are worried about obsolescence. As we move forward, the work we do will look different. This disruption, which people perceive as a negative thing, is scary, but the benefits are going to outweigh the cost of any disruptions.

Want to read more?

Download the full eBook Free >

About the Author: Kirk Borne is a member of the NextGen Analytics and Data Science initiative within the Booz Allen Hamilton Strategic Innovation Group and an advisor for several other firms. Previously, he was professor of astrophysics and computational science at George Mason University, where he did research, taught, and advised students in the graduate and undergraduate Informatics and Data Science programs. Prior to that, he spent nearly 20 years supporting large scientific data systems at NASA.

STEEN KJØNG PAULSEN

Business Intelligence Consultant, Inspari A/S

Twitter | Website

> “Data that historically were impossible to use because of slow analytics systems can now be game changers.”

In-memory computing and superfast data processing at scale can disrupt industry by enabling the commoditization of previously unavailable or unusable data. We no longer must rely on the tightly formatted, structured data of relational databases. With technologies like Apache Hadoop, Apache Spark, and Scala, we can mine and analyze masses of unstructured video, audio, tweets, newspaper articles, and machine sensor data, integrating them all into our daily work lives in real time.

Want to read more?

Download the full eBook Free >

About the Author: Steen Kjøng Paulsen has, throughout his professional life, been engaged in the business intelligence (BI) and analytics industry. He has taken the journey as software developer, head of research, and consultant. He is currently in the consulting business, where he leads the initiatives on Apache Hadoop–based projects. He is strongly engaged in emerging technologies within BI and analytics and thus has a wide area of expertise using big data.

PAUL HAWKING

Associate Professor,
Information Systems;
SAP Mentor,
Victoria University

Twitter I Website

> “Currently, the problem with the fast data industry is that a lot of companies know that it's important, but they do not know what to do with it.”

Organizations need a roadmap to guide them through the steps of adopting and implementing fast data technologies, with the understanding that we are just beginning to see the full potential of the technology. The organizations that invest time into fast data processing technologies will be the ones to lead the way for other companies waiting to see what comes from those technologies.

Want to read more?

Download the full eBook Free >

About the Author: Paul Hawking is an associate professor in Information Systems at Victoria University. He is considered one of the leading commentators on enterprise resource planning systems and business intelligence—specifically, SAP solutions. His knowledge is well respected in both industry and academia, and he is often asked to assist companies with their SAP strategies and solutions. Paul has presented at leading SAP and academic conferences around the world and was the first academic to achieve SAP Mentor status.

SCOTT SHAW

Solutions Engineer,
Hortonworks

Twitter | Website

> “Hadoop allows for a mixture of data access (batch, interactive, real time) all on the same platform, all acting on the same data.”

With faster data processing tools, not only can companies react faster to a changing market, but they can begin to run their analytics pretransaction. Companies using Hadoop and in-memory processing can build more accurate predictive models that anticipate action in the marketplace. In a sense, the flexibility of distributed storage and the speed of in-memory processing have created a competitive race for companies in which the realization of future gains is determined by how far and how deeply they look into the past.

Want to read more?

Download the full eBook Free >

About the Author: Scott Shaw has more than 15 years of experience in data management and business analytics. He has worked as an Oracle and Microsoft SQL Server database administrator; he was a principal consultant and headed a data management practice. Scott worked closely with clients to design and model complex data warehouses. He now works as a solutions engineer for Hortonworks, providing architecture and deep learning around open source Apache Hadoop. Scott lives in Saint Louis with his wife and two children.

JUSTIN LANGSETH

CEO,
Zoomdata

Twitter I Website

> "If your system hasn't been revamped in the past two years, it probably needs to be re-architected now."

Data warehousing and the old approaches to batching and transforming data are fading away. Today, treating big data as a continuous, real-time steam is the only practical way to handle it. If you consider building something new or simply decide to refactor what you already have, think hard about ways to keep your data moving. If you accomplish that goal, get ready for a huge surge of power.

Want to read more?

Download the full eBook Free >

About the Author: Justin Langseth is CEO of Zoomdata, developers of the fastest visual analytics for big data. Zoomdata is Justin's fifth startup: he had previously founded Strategy.com, Claraview, Clarabridge, and Augaroo. Justin is an expert in big data, business intelligence, text analytics, sentiment analytics, and real-time data processing. He graduated from MIT with a degree in management of information technology and holds 14 patents. He is eagerly awaiting the singularity to increase his personal I/O rate, which is currently and frustratingly pegged at 300 baud.

SEAN OWEN

Senior Research Associate, Cloudera

Twitter I Website

> "Caching data in high-speed flash storage or memory is simply a good thing to do."

Using sophisticated models to analyze small data sets is ineffective compared to applying simple algorithms to increasingly large data sets. In today's business world, big data trumps small data. More speed, more resources, and bigger scale can concretely change your business, but think strategically - it is important that companies know what *superfast* means for them.

Want to read more?

Download the full eBook Free >

About the Author: Sean Owen is director of Data Science at Cloudera in London. Before Cloudera, he had founded Myrrix Ltd (now, the Oryx open source project) to commercialize large-scale real-time recommender systems on Apache Hadoop. He is an Apache Spark committer and co-wrote *Advanced Analytics on Spark*. Sean was a committer and vice president for Apache Mahout and co-author of *Mahout in Action*. Previously, he was a senior engineer at Google.

MARK HIMELSTEIN

Chief Performance Architect,
Splice Machine, Inc.

Twitter | Website

> "The retailer had all the data in its system that it needed to detect and prevent the breach: it simply did not analyze and act on those data."

The business world is moving toward analyzing near–real-time structured and unstructured queries simultaneously. To keep pace and succeed, a hardware-aware, holistic solution is the answer to transforming the way business decisions and therefore money will be made in the future.

Want to read more?

Download the full eBook Free >

About the Author: Mark Himelstein is the chief performance architect at Splice Machine, the premier scale out RDBMS. Previously, he was CTO and co-founder of Graphite Systems, Inc. Prior to joining Graphite, Mark was the CTO of Quantum Corp.; before that, he was vice-president of Solaris Engineering at Sun Microsystems, where he led several major revision releases of Solaris and spearheaded the development of the DTRACE, ZFS, and Zones features.

ADAM GIBSON

Co-founder & CTO, Skymind

Twitter | Website | Blog

> "One of the smartest things you can do is engage the open-source community."

Deep learning is a simple, powerful idea: the trick is to be smart about it. Engage the open source community; hire people who know how the community operates and who can contribute to deep learning's open source development. That way, your company can gain credibility with the vitally important open source community while making sure its needs are met.

Want to read more?

Download the full eBook Free >

About the Author: Adam Gibson is the co-founder of Skymind and creator of the open source libraries Deeplearning4, a distributed deep-learning framework for the Java Virtual Machine (JVM), and ND4J, a scientific computing library for the JVM. He is the author of *Deep Learning: A Practitioner's Approach* (O'Reilly, forthcoming) and currently an advisor to the data science master's program at GalvanizeU. He studied computer science at Michigan Technological University and lives in the Bay Area, near San Francisco.

GEORGE GILBERT

Senior Analyst, Big Data and Analytics, Wikibon

Twitter | Website | Blog

> "That type of integration between the transaction and the analytics takes new underlying technology."

The next generation's business applications are going to look a lot more like the leading-edge consumer websites of the past five years—LinkedIn, Netflix, Amazon. What distinguishes such leading-edge consumer websites from traditional applications is the integration between data capture and analytics.

Want to read more?

Download the full eBook Free >

About the Author: George Gilbert is big data analyst for Wikibon/theCUBE. He was a big data analyst for Gigaom Research and has been profiled on the front page of *The Wall Street Journal* and published as a guest author in a major overview of cloud computing in *The Economist*. Previously, George was the lead enterprise software analyst for Credit Suisse First Boston, one of the top investment banks to the technology sector, and a product manager on Notes at Lotus Development. George received his B.A. degree in economics from Harvard University.

ABHISHEK MEHTA

CEO,
Tresata

Twitter I Website

> “The ability to deliver products and services at the right time in the right place to the right customer instantly is the future.”

The holy trinity of enterprise real-time solutions—speed, quality, and low cost—is a reality today. Hadoop is the start of the Second Industrial Revolution because data are now the core asset for every enterprise. The ability to deliver products and services at the right time in the right place instantly is the future. The technology finally exists to do that.

Want to read more?

Download the full eBook Free >

About the Author: Abhishek Mehta is the founder and CEO of Tresata, a predictive analytics software company redefining business by automating complex human processes. He has built Tresata into a leading analytics innovator with a vision to use data to help enrich life. His history is a combination of radical technology expertise and practical, in-the-trenches business leadership. He was an executive in residence at MIT Media Lab, managing director at Bank of America, and in client-facing leadership positions at Cognizant Technology Solutions and Arthur Andersen.

FABIAN WILCKENS

EMEA Solutions Architect, MapR

Twitter | Website | Blog

> “Big data is beginning to make fundamental changes that affect the entire automotive ecosystem.”

Every car today is becoming a connected device that generates huge amounts of data—data that are changing the way automobile manufacturers, services centers, vehicle owners, and cities engage with each other. Big data is beginning to make fundamental changes that affect the entire automotive ecosystem.

Want to read more?

Download the full eBook Free >

About the Author: Fabian Wilckens is a solutions architect at MapR, where his focus is on helping companies build next-generation data platforms. Prior to joining MapR, Fabian worked as a strategic architect at VMware, implementing Cloud Computing and Data Analytics solutions. Previously, Fabian started his own e-learning company and was also a senior consultant for Unisys Corporation. Fabian holds a B.S. in Computer Science.

RANDAL SCOTT KING

Managing Partner,
Brilliant Data, LLC

Twitter | Website | Blog

> "The question of the impact of big data is really the visible and not-so-visible ways it is changing our lives."

The use of big data has far-reaching ethical implications for the world's nations, each of which operates according to its own best practices. But the Internet knows no boundaries, and the application of big data is outpacing the rules governing its use.

Want to read more?

Download the full eBook Free >

About the Author: Randal Scott King is the managing partner of Brilliant Data, a global consultancy specializing in big data, analytics, and network architecture. During his 16-year career in IT, he has done work for such industry-leading clients as Sprint, Lowe's Home Improvement, Gulfstream Aerospace, and AT&T. Scott lives with his children on the outskirts of Atlanta, GA.

MIKE KAVIS

VP/Principal Architect,
Cloud Technology Partners

Twitter | Website | Blog

> “Everything is changing, and you have to move at the new speed of business or be crushed.”

Optimized business processes bring more intelligence up front so that business can make improvements earlier. In today’s big data world, everything is changing, and companies have to move at the new speed of business or be crushed beneath the stampede.

Want to read more?

Download the full eBook Free >

About the Author: Mike Kavis has served in numerous technical roles, from CTO and chief architect to VP. He has more than 25 years of experience in software development and architecture and has been a pioneer in cloud computing, having led a team that built the world’s first high-speed transaction network in Amazon’s public cloud—a network that won the 2010 AWS Global Startup Challenge. Mike is an analyst and blogger at *Forbes* and *The Virtualization Practice* and is the author of Architecting the Cloud: Design Decisions for Cloud Computing Service Models (IaaS, PaaS, SaaS).

GIORGIA LUPI

Design Director,
Accurat

Twitter | Website | Blog

> “Visual analytics blends art and science to communicate meaning.”

Superfast data processing will soon lead to an explosion of visual analytics solutions that take advantage of unprecedented, real-time connections. Data visualization can help businesses crunch huge amounts of data rapidly and take fast corrective action, helping ensure business success.

Want to read more?

Download the full eBook Free >

About the Author: Giorgia Lupi is an information designer. Her work in information visualization frequently crosses the divide between digital and print, exploring visual models and metaphors to represent dense and rich data-driven stories. She is co-founder and design director at Accurat, a data-driven research, design, and innovation firm based in Milan and New York.

IAN HOWELLS

Chief Marketing Officer,
Argyle Data

Twitter | Website | Blog

> “Rules fail. By definition, rules define what is already known.”

By definition, rules define what we already know. If a mobile provider is hit with a new, unknown fraud assault, rules-based systems could never detect that. In contrast, a big data approach detects 280 percent more fraud incidents, with 25 times fewer false positives. Every industry should investigate such possibilities.

Want to read more?

Download the full eBook Free >

About the Author: Dr. Ian Howells is a recognized thought leader on the transition to big data machine learning applications. He wrote the book *Fighting Future Fraud: A Strategy for Using Big Data, Machine Learning and Data Lakes to Fight Communications Fraud* and has written widely on the subject on fraudtechwire. Howells has spent his career in senior marketing roles, building companies based on disruptive technology from their early stages to IPO or acquisition.

TAMAS SZIRTES

Director, Innovation and Technology, SOA People Nederland

Twitter | Website | Blog

> "Data-driven customer engagement helps retailers deliver the best shopping experience possible for customers."

A complete picture of customers at the granular level gives retailers great power in their negotiations with suppliers. They can now know with a high degree of certainty what customers will pay for a product and how much of it they will buy next week or next month. Armed with this knowledge, retailers are in a strong position to negotiate the best prices from their wholesale suppliers. Retail is becoming an end-to-end analytics-driven business.

Want to read more?

Download the full eBook Free >

About the Author: Dr. Tamas Szirtes is director of Innovation and Technology at SOA People Nederland. He is an SAP Mentor, HANA Distinguished Engineer, speaker, and author. He has 17 years of consulting experience from international projects in major Fortune 500 companies. He is active in mobile and in-memory (big data) technology consulting. Tamas has a Ph.D. in knowledge management, a master's of science degree in business administration, and a master's of science degree in computational engineering.

PETER LANGNER

Consultant,
Adventas Consulting

Twitter | Website

> “Trading is a goods-driven business; such businesses must acquire and deliver goods on time to meet customers’ needs.”

In-memory computing makes it possible to run trading management applications faster and generate reports more quickly, which is important to traders that must track so many variables to ensure profitability. Some of the new analytics tools will certainly provide a competitive advantage to traders that adopt them, and near–real-time reporting will enable global traders to more effectively support their customers. Retailers are using these tools to personalize their customer engagements, and this has already had an impact on the way they buy product from their suppliers.

Want to read more?

Download the full eBook Free >

About the Author: Since 2006, Peter Langner has been a consultant advising mainly trading and finance companies on SAP implementation and upgrades. He is an experienced project manager, business consultant, and developer. Previously, Peter consulted in banking, business process modelling, and design and implementation of processes with SAP. He later joined a well-known German retailer as a project manager tasked with changing the systems landscape in such a way that the business could be rolled out to other countries.

JONATHAN SCHWABISH

Senior Research Associate,
Urban Institute

Twitter | Website | Blog

> “Tools that make it easier to analyze large data sets allow you to break down walls between organizational silos and discover new insights.”

Analytical tools are now readily available to more organizations and people, which means that more people can look at data with their own questions and perspectives in mind. The result is a growing movement toward more open data. This also creates a self-perpetuating circle of data and the tools needed to analyze them, to the benefit of businesses and individuals alike.

Want to read more?

Download the full eBook Free >

About the Author: Jon Schwabish is an economist, writer, teacher, and creator of policy-relevant data visualizations. He has written on various aspects of how best to visualize data, including technical aspects of creation, design best practices, and how to communicate social science research in more accessible ways. He is considered a leading voice for clarity and accessibility in how researchers communicate their findings. He is currently writing a book with Columbia University Press on presentation design and techniques.

SCOTT GNAU

Chief Technology Officer, Hortonworks

Website

“I see data as the primary disruptor.”

Data are the primary disrupter. The past few years have seen a dramatic increase in the amount of collected data, which in turn have spawned a whole new generation of tools needed to make sense of them. In a world where a company’s business information and intellectual property are its most valuable assets, businesses of all kinds are becoming data brokers.

Want to read more?

Download the full eBook Free >

About the Author: Scott Gnau is responsible for the Hortonworks’ global technology strategy, leading innovative product directions and providing expertise and leadership across the organization’s research and development programs. He has spent his entire career in the data industry, most recently as president of Teradata Labs, where he ran research, development, mergers and acquisitions, and sales support activities related to Teradata’s integrated data warehousing, big data analytics, and associated solutions. Scott holds a BSEE degree from Drexel University.

MICHAEL FRANKLIN

Thomas M. Siebel Professor of Computer Science and Chair, Computer Science Division, AMPLab, University of California, Berkeley

Twitter | Website | Blog

> “Data-driven science makes it possible to view the world as a living laboratory that can be observed in real time.”

Easy access to data and low-cost analytical tools have become the basis for a new scientific paradigm: data-driven science. Data-driven science makes it possible to view the world as a living laboratory that can be observed in real time. In this way, the cycle of hypothesis and testing happens much faster, which means learning happens faster, too.

Want to read more?

Download the full eBook Free >

About the Author: Michael Franklin has more than 30 years of experience in the database, data analytics, and data management fields as an academic and industrial researcher, teacher, lab director, faculty member, entrepreneur, and software developer. He is also the director of Berkeley's Algorithms, Machines, and People Laboratory (AMPLab), which is known for creating the popular open source big data systems Apache Spark, Mesos, GraphX, and MLlib—all parts of the Berkeley Data Analytics Stack.

ALLEN DAY

Chief Scientist,
MapR Technologies

Twitter | Website

> “Industries will increasingly compete on the basis of computational simulations, and the winners will be those with the models of the real world that are most accurate.”

We can create realistic three-dimensional simulations in physics engines because we understand the underlying laws of physics. Biology, however, is a fundamentally descriptive science. Its nature limits our ability to test hypotheses and get to the roots of many medical problems that continue to baffle us. With the arrival of superfast, in-memory computation, we can finally begin to process and analyze massive volumes of high-density biological data.

Want to read more?

Download the full eBook Free >

About the Author: Allen Day is chief scientist at MapR. His primary career objective is to improve the quality of human life by innovating at the intersection of genetics, computer science, mathematics, and IT. Allen is inspired by the natural world, where the most advanced designs can usually be found as algorithms encoded in DNA that run as a massively parallel network of chemical reactions.

SHONALI BURKE

President and CEO,
Shonali Burke Consulting

Twitter | Website | Blog

> “The analytics showed what would work—and it did, much to the customer's delight.”

Few public relations (PR) agencies think of using data analytics to refine their strategy, but data show what is working and what is not. They provide clear insights into what strategies business should use. Industries like PR must map that knowledge to business objectives and the story to which they want their audience to react.

Want to read more?

Download the full eBook Free >

About the Author: Shonali Burke was named to PRWeek's inaugural top “40 Under 40” list of United States–based PR professionals, is one of 25 women who rock social media, and is the 2015 recipient of AWC-DC's Matrix Award. As president and CEO of Shonali Burke Consulting, she uses measurable social PR to take business communications from corporate codswallop to community cool™. Shonali teaches at The Johns Hopkins and Rutgers Universities, is founder and publisher of the popular PR community blog Waxing UnLyrical, and creator and curator of the #measurePR hashtag and Twitter chat.

FRANÇOIS GARILLOT

Big Data Engineer,
Swisscom

Twitter | Website | Blog

> "The challenge was how to identify coffee drinkers in a predominately tea-drinking population."

There are two primary ways to advertise on the Internet: analyze browsing behavior, and then, based on that analysis pop up a product-specific advertisement in real time or use brand advertising, whose goal is to reach every possible person with a brand ad. Attempting to saturate the Internet with a brand ad would be prohibitively expensive, but new analytics models are making Internet brand advertising across large populations both possible and effective.

Want to read more?

Download the full eBook Free >

About the Author: François Garillot worked on the Scala type system in 2006 and earned his Ph.D. from École Polytechnique in 2011. He has worked in online advertising and on interactive interfaces to the Scala compiler while nourishing a passion for data analytics in his spare time. In 2014, Apache Spark let him fulfill this passion as his main job. In November 2014, François because the first developer in the world to receive Databrick's Spark Certification.

ALLISON LLOYD

Editor in Chief and Conference Director, DOCUMENT Strategy Media & Forum

Twitter | Website | Blog

> “Executives tell me all the time that they are data rich and information poor.”

Choosing the right attribution method for advanced analytics and data modeling helps you make intelligent decisions about your marketing spend and prioritize engagement channels. To be able to move on from antiquated last-click attributions, marketers must gauge how multi-dimensional attribution models can provide better context and trigger the desired action.

Want to read more?

Download the full eBook Free >

About the Author: Allison Lloyd serves as the editor of *DOCUMENT Strategy Media*, a management publication for executives, directors, and managers involved in the core areas of communications, enterprise content management, and information management strategies. Building on her highly respected editorial, she also helped launch the DOCUMENT Strategy Forum, a prestigious management conference for high-level executives involved with corporate communications and information management. Regularly addressing C-suite–level decision makers and enterprise executives, she delivers thought leadership on strategic solutions for managing effective communications with consumers.

KIRK BORNE

Principal Data Scientist ,
Booz Allen Hamilton

Twitter | Website | Blog

> “Marketing is a forensic science: it should be based on evidence, not just the opinion of the highest-paid person in the room.”

Your company collects all the data it needs to run effective marketing campaigns to defined personas. How the organization uses the data it collects is the difference between a data-driven marketing organization and a more traditional organization. Discover three strategies to make your marketing organization a data-driven powerhouse.

Want to read more?

Download the full eBook Free >

About the Author: Kirk Borne is a member of the NextGen Analytics and Data Science initiative within the Booz Allen Hamilton Strategic Innovation Group and an advisor for several other firms. Previously, he was professor of astrophysics and computational science at George Mason University, where he did research, taught, and advised students in the graduate and undergraduate Informatics and Data Science programs. Prior to that, he spent nearly 20 years supporting large scientific data systems at NASA.

CHRIS CONREY

Director of Sales and Marketing, Expanded.io

Twitter | Website | Blog

> “All the analytics in the world aren't going to do you any good if you set them and forget them.”

Using analytics to determine attributions and conversions doesn't have to be overwhelming. Start small—a single metric—and build from there. By reviewing analytics regularly, you'll be able to see which marketing elements work and which don't.

Want to read more?

Download the full eBook Free >

About the Author: Chris Conrey is a writer, speaker, and coach on the new world of sales. Beginning with the writing of the *Post Modern Sales Manifesto*, Chris began moving sales away from being a dirty word. He's brought that focus to other companies as a team member while also spending time helping small businesses build their sales process. Chris spends his non-sales time playing with his three daughters, reading, and watching his beloved Red Sox.

ANDREW C. SANDERSON

Managing Partner,
Pawn Global Venture Capital Consultants

Twitter I Website

> “By assigning each data point or metric to a specific category, you are able to categorize like values or metrics into a more discernable chart.”

If you can’t answer this question—“What are the numbers that I’m currently tracking telling me right now, and why do I attribute it to that specific information?”—then you’re not truly living in the data-driven marketplace. Only when you learn to use the social media platforms that let you view customer metrics will you have the insight to engage with your customer base.

Want to read more?

Download the full eBook Free >

About the Author: Andrew Sanderson is a millennial entrepreneur and international strategy executive focused on solutions to problems and innovative steps to reach quantitative team goals. A trained sales executive and leader whose business development skills are inline with todays socially connected business minds, his unique ability to bridge industries and connect like-minded executives along a common goal is what makes him indispensable.

RUSS MERZ

Professor, Research Scientist, Analytics Consultant, Eastern Michigan University, Blab Predicts

Twitter | Website

> “Without good models, it's virtually impossible to allocate resources in a way that will have any true impact on ROI.”

To build a successful data-driven marketing organization, three tasks are paramount: (1) create a framework that helps you understand how your tactics change your KPIs, (2) quantify the elements in that framework, and (3) look for empirical links among the various pieces. Discover strategies for putting these elements in place in your organization.

Want to read more?

Download the full eBook Free >

About the Author: Russ Merz is an experienced research scientist, analytics consultant, and professor. He has subject matter expertise in market research methods, as well as in the development and application of customer experience analytics to marketing management problems in the areas of advertising, public relations, branding, retailing, social media, and e-commerce.

GREG BONSIB

Director, Channel Marketing,
Zenith Products Corp.

Twitter | Website | Blog

> “In this way we can identify ad strategies that perform well and those that are total duds. Failures are as important as successes.”

When you look at data strategically, with the premise that the customer is the ultimate focus, you can identify ad strategies that perform well. Then, you can create focused, inexpensive tests that prove your strategy. When you can prove that what you're doing works, you gain the credibility and resources to do it again.

Want to read more?

Download the full eBook Free >

About the Author: Greg Bonsib is a B2C channel marketing expert. He has extensive experience working in senior marketing roles at Owens Corning and Newell Rubbermaid and is currently leading channel marketing at Zenith Products Corp. He specializes in selling consumer products through mass retailers like Wal-Mart, Target, Home Depot, Lowe's, and Amazon. Greg also publishes an industry-leading blog on channel marketing.

Mighty Guides

Mighty Guides make you stronger.

These authoritative and diverse guides provide a full view of a topic. They help you explore, compare, and contrast a variety of viewpoints so that you can determine what will work best for you. Reading a Mighty Guide is kind of like having your own team of experts. Each heartfelt and sincere piece of advice in this guide sits right next to the contributor's name, biography, and links so that you can learn more about their work. This background information gives you the proper context for each expert's independent perspective.

Credible advice from top experts helps you make strong decisions. Strong decisions make you mighty.

© 2015 Mighty Guides, Inc. I 62 Nassau Drive I Great Neck, NY 11021 I 516.360.2622

www.mightyguides.com