

# **Analytics At Work Smarter Decisions Better Results Thomas H Davenport**

"A very rich book sprinkled with real-life examples as well as battle-tested advice." —Pierre Haren, VP ILOG, IBM "James does a thorough job of explaining Decision Management Systems as enablers of a formidable business transformation." —Deepak Advani, Vice President, Business Analytics Products and SPSS, IBM Build Systems That Work Actively to Help You Maximize Growth and Profits Most companies rely on operational systems that are largely

passive. But what if you could make your systems active participants in optimizing your business? What if your systems could act intelligently on their own? Learn, not just report? Empower users to take action instead of simply escalating their problems? Evolve without massive IT investments? Decision Management Systems can do all that and more. In this book, the field's leading expert demonstrates how to use them to drive unprecedented levels of business value. James Taylor shows how to integrate operational and analytic technologies to create systems that are more agile, more analytic, and more adaptive. Through actual case studies, you'll learn how to combine

technologies such as predictive analytics, optimization, and business rules—improving customer service, reducing fraud, managing risk, increasing agility, and driving growth. Both a practical how-to guide and a framework for planning, Decision Management Systems focuses on mainstream business challenges. Coverage includes Understanding how Decision Management Systems can transform your business Planning your systems “with the decision in mind” Identifying, modeling, and prioritizing the decisions you need to optimize Designing and implementing robust decision services Monitoring your ongoing decision-making and learning how to

improve it Proven enablers of effective Decision Management Systems: people, process, and technology Identifying and overcoming obstacles that can derail your Decision Management Systems initiative

The abundance of data and the rise of new quantitative and statistical techniques have created a promising area: data analytics. This combination of a culture of data-driven decision making and techniques to include domain knowledge allows organizations to exploit big data analytics in their evaluation and decision processes. Also, in education and learning, big data analytics is being used to enhance the learning process, to

evaluate efficiency, to improve feedback, and to enrich the learning experience. As every step a student takes in the online world can be traced, analyzed, and used, there are plenty of opportunities to improve the learning process of students. First, data analytics techniques can be used to enhance the student's learning process by providing real-time feedback, or by enriching the learning experience. Second, data analytics can be used to support the instructor or teacher. Using data analytics, the instructor can better trace, and take targeted actions to improve, the learning process of the student. Third, there are possibilities in using data analytics to measure the

performance of instructors. Finally, for policy makers, it is often unclear how schools use their available resources to "produce" outcomes. By combining structured and unstructured data from various sources, data analytics might provide a solution for governments that aim to monitor the performance of schools more closely. Data analytics in education should not be the domain of a single discipline. Economists should discuss the possibilities, issues, and normative questions with a multidisciplinary team of pedagogists, philosophers, computer scientists, and sociologists. By bringing together various disciplines, a more comprehensive answer can be

formulated to the challenges ahead. This book starts this discussion by highlighting some economic perspectives on the use of data analytics in education. The book begins a rich, multidisciplinary discussion that may make data analytics in education seem as natural as a teacher in front of a classroom.

The New Manager's Guide and Mentor The Harvard Business Essentials series is designed to provide comprehensive advice, personal coaching, background information, and guidance on the most relevant topics in business. Whether you are a new manager seeking to expand your skills or a seasoned professional looking to

broaden your knowledge base, these solution-oriented books put reliable answers at your fingertips. Decision making is a critical part of management, and bad choices can damage careers and the bottom line. This book offers the tools and advice managers need to avoid common biases and arrive at and implement decisions that are both sound and ethical.

A renowned thought-leader and a professor of statistics team up to provide the essential tools for enhancing thinking and decision-making in today's workplace in order to be more competitive and successful. 25,000 first printing.  
Making Smarter Marketing  
Decisions



How To Compete and Win In the  
Age of Analytics

A PRACTITIONER'S GUIDE TO  
BUSINESS ANALYTICS: Using  
Data Analysis Tools to Improve Your  
Organization's Decision Making and  
Strategy

Your Guide to Understanding and  
Using Analytics

How to Beat the Coming Shortage of  
Skills And Talent

Data Science for Business

Keeping Up with the Quants

**Your guide to making better  
decisions Despite the dizzying  
amount of data at our disposal  
today—and an increasing reliance  
on analytics to make the majority of  
our decisions—many of our most  
critical choices still come down to  
human judgment. This fact is**

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**fundamental to organizations whose leaders must often make crucial decisions: to do this they need the best available insights. In Judgment Calls, authors Tom Davenport and Brook Manville share twelve stories of organizations that have successfully tapped their data assets, diverse perspectives, and deep knowledge to build an organizational decision-making capability—a competence they say can make the difference between success and failure. This book introduces a model that taps the collective judgment of an organization so that the right decisions are made, and the entire organization profits. Through the stories in Judgment Calls, the authors—both of them seasoned**

**management thinkers and advisers—make the case for the wisdom of organizations and suggest ways to use it to best advantage. Each chapter tells a unique story of one dilemma and its ultimate resolution, bringing into high relief one key to the power of collective judgment. Individually, these stories inspire and instruct; together, they form a model for building an organizational capacity for broadly based, knowledge-intensive decision making. You've read *The Wisdom of Crowds* and *Competing on Analytics*. Now read *Judgment Calls*. You, and your organization, will make better decisions.**

**This book offers students and practitioners alike an integrated approach to strategic planning for**

**companies. Marcos Fava Neves presents a new and unique perspective on this critical topic based on three main points: strongly demand-driven decisions that bridge the gap between long- and short-term strategy; a vision of a company as an integrated network, full of relationships that deserve consideration during the planning process; and the introduction of ‘collective-action’ thinking, which raises the prospect for cooperation between competitors. With this clear, comprehensive framework for strategic planning, companies can be sure to navigate today’s complex environment and enhance their prospects of success. Now updated with new research and even more intuitive**

**explanations, a demystifying explanation of how managers can inform themselves to make less risky, more profitable business decisions This insightful and eloquent book will show you how to measure those things in your own business that, until now, you may have considered "immeasurable," including customer satisfaction, organizational flexibility, technology risk, and technology ROI. Adds even more intuitive explanations of powerful measurement methods and shows how they can be applied to areas such as risk management and customer satisfaction Continues to boldly assert that any perception of "immeasurability" is based on certain popular misconceptions about measurement and**

**measurement methods Shows the common reasoning for calling something immeasurable, and sets out to correct those ideas Offers practical methods for measuring a variety of "intangibles" Adds recent research, especially in regards to methods that seem like measurement, but are in fact a kind of "placebo effect" for management – and explains how to tell effective methods from management mythology Written by recognized expert Douglas Hubbard-creator of Applied Information Economics-How to Measure Anything, Second Edition illustrates how the author has used his approach across various industries and how any problem, no matter how difficult, ill defined, or uncertain can lend itself to measurement using proven**

**methods.**

**You're sitting in a windowless conference room. Twenty minutes into the meeting the presenter finally makes it to slide four of a thirty two- slide deck. At least you can read this one, unlike the others, which were crammed with numbers, graphs and charts. You look around, wondering if anyone else is following the presentation. Just about everyone these days suffers from information overload the 24/7 explosion from our computers, smartphones, media, colleagues, and customers. Information is essential to making intelligent decisions, but more often than not, it simply overwhelms us. It's like trying to drink from a fire hose. The question isn't how to stop all those e-mails,**

**meetings, conference calls, and fat reports; that's impossible. The question is what to do with them. How do you find the truly essential nuggets of information and use them with confidence? The solution proposed by Christopher Frank and Paul Magnone sounds deceptively simple: Learn how to ask the right questions at the right time. Whatever field you're in, asking smarter questions will expose you to new information, point you to connections between seemingly unrelated facts, and open new avenues of discussion with your colleagues. The authors explain the seven questions that can help you bring a big- picture perspective to problems that often leave others buried in irrelevant details. And they show through real-life case**



**studies- including Trader Joe's, Starbucks, Kodak, Microsoft, iRobot, and IBM-how their method can have a dramatic impact. It really is possible to convert the fire hose of information into useful insights. Consider a nonbusiness example: the 2010 Icelandic volcano eruption that sent a giant ash cloud toward Europe. Tens of thousands of flights were canceled and five million passengers stranded, leading to billions in economic losses. Europe's best scientists generated oceans of data and carefully modeled the cloud's dispersion pattern. But no one could answer the essential question: Was the concentration of volcanic ash in the air enough to damage a jet engine? Without that key answer, all the carefully**

**gathered facts were useless to the decision makers. Once you adopt the seven questions, you'll start having more productive brainstorming sessions. You'll answer critical questions faster and find unexpected solutions to important problems. And you'll get better at communicating to your colleagues with more clarity and focus, turning down the fire hose that other people have to cope with.**

**A Manifesto for Next Generation Finance**

**Enterprise Analytics**

**Big Data at Work**

**The New Science of Winning**

**Twelve Stories of Big Decisions and the Teams That Got Them Right**

**Understanding the New Currency of Business**

## **Taking Business Intelligence Beyond Reporting**

You have more information at hand about your business environment than ever before. But are you using it to “out-think” your rivals? If not, you may be missing out on a potent competitive tool. In *Competing on Analytics: The New Science of Winning*, Thomas H. Davenport and Jeanne G. Harris argue that the frontier for using data to make decisions has shifted dramatically. Certain high-performing enterprises are now building their competitive strategies around data-driven insights that in turn generate

impressive business results. Their secret weapon? Analytics: sophisticated quantitative and statistical analysis and predictive modeling. Exemplars of analytics are using new tools to identify their most profitable customers and offer them the right price, to accelerate product innovation, to optimize supply chains, and to identify the true drivers of financial performance. A wealth of examples—from organizations as diverse as Amazon, Barclay ' s, Capital One, Harrah ' s, Procter & Gamble, Wachovia, and the Boston Red Sox—illuminate how to leverage the power of analytics.

Too many organizations invest in performance management and business intelligence projects, without first establishing the needed conditions to ensure success. But the organizations that lay the groundwork for effective change first reap the benefits. In Profiles in Performance: Business Intelligence Journeys and the Road Map for Change, Howard Dresner (author of The Performance Management Revolution) worked with several extraordinary organizations to understand their thriving "performance-directed culture." In doing so, he developed a

unique maturity model-which served as both a filter to select candidates and as a lens to examine accomplishments. Interviews with people from all sides of the organization: business users, finance, senior management and the IT department Provides a complete picture of their progress from inception to current state The models, analyses and real world accounts from these cases will be an invaluable resource to any organization hoping to improve or initiate their own performance-directed culture. Don't let a fear of numbers hold you back. Today's business

environment brings with it an onslaught of data. Now more than ever, managers must know how to tease insight from data--to understand where the numbers come from, make sense of them, and use them to inform tough decisions. How do you get started? Whether you're working with data experts or running your own tests, you'll find answers in the HBR Guide to Data Analytics Basics for Managers. This book describes three key steps in the data analysis process, so you can get the information you need, study the data, and communicate your findings to others. You'll learn

how to: Identify the metrics you need to measure Run experiments and A/B tests Ask the right questions of your data experts Understand statistical terms and concepts Create effective charts and visualizations Avoid common mistakes

Written by renowned data science experts Foster Provost and Tom Fawcett, *Data Science for Business* introduces the fundamental principles of data science, and walks you through the "data-analytic thinking" necessary for extracting useful knowledge and business value from the data you collect. This



guide also helps you understand the many data-mining techniques in use today. Based on an MBA course Provost has taught at New York University over the past ten years, Data Science for Business provides examples of real-world business problems to illustrate these principles. You 'll not only learn how to improve communication between business stakeholders and data scientists, but also how participate intelligently in your company 's data science projects. You 'll also discover how to think data-analytically, and fully appreciate how data science methods can support business

decision-making. Understand how data science fits in your organization—and how you can use it for competitive advantage

Treat data as a business asset that requires careful investment if you 're to gain real value

Approach business problems data-analytically, using the data-mining process to gather good data in the most appropriate way

Learn general concepts for actually extracting knowledge from data

Apply data science principles when interviewing data science job candidates

Drinking from the Fire Hose

Realizing the Promise of Enterprise Systems

How to Measure Anything  
What You Need to Know about  
Data Mining and Data-Analytic  
Thinking  
Workforce Crisis  
Making Smarter Decisions  
Without Drowning in Information  
Judgment Calls  
Go ahead, be skeptical about big  
data. The author was—at first.  
When the term “big data” first came  
on the scene, bestselling author  
Tom Davenport (Competing on  
Analytics, Analytics at Work)  
thought it was just another example  
of technology hype. But his  
research in the years that followed  
changed his mind. Now, in clear,  
conversational language,

Davenport explains what big data means—and why everyone in business needs to know about it. *Big Data at Work* covers all the bases: what big data means from a technical, consumer, and management perspective; what its opportunities and costs are; where it can have real business impact; and which aspects of this hot topic have been oversold. This book will help you understand:

- Why big data is important to you and your organization
- What technology you need to manage it
- How big data could change your job, your company, and your industry
- How to hire, rent, or develop the kinds of people who make big data work
- The key success factors in

implementing any big data project •  
How big data is leading to a new approach to managing analytics  
With dozens of company examples, including UPS, GE, Amazon, United Healthcare, Citigroup, and many others, this book will help you seize all opportunities—from improving decisions, products, and services to strengthening customer relationships. It will show you how to put big data to work in your own organization so that you too can harness the power of this ever-evolving new resource.  
For many years Finance has had a monopoly on reporting numbers to business leaders, but this monopoly no longer exists. Unless Finance gets into the analytics game,

Finance risks being sidelined and replaced in many of its FP&A functions. Finance needs to act fast and step up its game. Turning data into insights and foresight is crucial for, what we call, Next Generation Finance. With recent emergent technologies and a change in mentality of wanting to influence decisions, Finance has started the journey of advancing from the Trusted Scorekeeper towards the Strategic Partner. In the journey towards a Strategic Partner an analytics culture for data driven decisions needs to be developed. A culture that has four key components of Mindset, People, Processes, and Systems. These components, when aligned,

institutionalize the practices about data driven decisions for business optimization. This book describes how to build a culture of data driven decisions using analytics. It purports that Finance becomes the hub of analytics to partner with the business to deliver the insights and foresight that impact the strategic decisions. Creating a culture of data driven decisions with analytics requires a Roadmap to transform Finance to the World Class Strategic Partner. This book lays out that roadmap...

Wall Street Journal bestseller!  
Poker champion turned business consultant Annie Duke teaches you how to get comfortable with uncertainty and make better

decisions as a result. In Super Bowl XLIX, Seahawks coach Pete Carroll made one of the most controversial calls in football history: With 26 seconds remaining, and trailing by four at the Patriots' one-yard line, he called for a pass instead of a hand off to his star running back. The pass was intercepted and the Seahawks lost. Critics called it the dumbest play in history. But was the call really that bad? Or did Carroll actually make a great move that was ruined by bad luck? Even the best decision doesn't yield the best outcome every time. There's always an element of luck that you can't control, and there is always information that is hidden from view. So the key to long-term



success (and avoiding worrying yourself to death) is to think in bets: How sure am I? What are the possible ways things could turn out? What decision has the highest odds of success? Did I land in the unlucky 10% on the strategy that works 90% of the time? Or is my success attributable to dumb luck rather than great decision making? Annie Duke, a former World Series of Poker champion turned business consultant, draws on examples from business, sports, politics, and (of course) poker to share tools anyone can use to embrace uncertainty and make better decisions. For most people, it's difficult to say "I'm not sure" in a world that values and, even,

rewards the appearance of certainty. But professional poker players are comfortable with the fact that great decisions don't always lead to great outcomes and bad decisions don't always lead to bad outcomes. By shifting your thinking from a need for certainty to a goal of accurately assessing what you know and what you don't, you'll be less vulnerable to reactive emotions, knee-jerk biases, and destructive habits in your decision making. You'll become more confident, calm, compassionate and successful in the long run. Convert the promise of big data into real world results

There is so much buzz around big data. We all need to know what it is and how it works

- that much is obvious. But is a basic understanding of the theory enough to hold your own in strategy meetings? Probably. But what will set you apart from the rest is actually knowing how to USE big data to get solid, real-world business results - and putting that in place to improve performance. Big Data will give you a clear understanding, blueprint, and step-by-step approach to building your own big data strategy. This is a well-needed practical introduction to actually putting the topic into practice. Illustrated with numerous real-world examples from a cross section of companies and organisations, Big Data will take you through the five steps of the

SMART model: Start with Strategy, Measure Metrics and Data, Apply Analytics, Report Results, Transform. Discusses how companies need to clearly define what it is they need to know  
Outlines how companies can collect relevant data and measure the metrics that will help them answer their most important business questions  
Addresses how the results of big data analytics can be visualised and communicated to ensure key decisions-makers understand them  
Includes many high-profile case studies from the author's work with some of the world's best known brands  
Forward Looking Capabilities to Improve Business Performance

Strategies for Gaining a  
Competitive Advantage with Data  
Demand Driven Strategic Planning  
Process Innovation  
Information Management  
Profiles in Performance  
Tools and Applications for Modeling  
*Learn how to make better; faster  
decisions. You make decisions every  
day--from prioritizing your to-do list  
to choosing which long-term  
innovation projects to pursue. But  
most decisions don't have a clear-cut  
answer, and assessing the alternatives  
and the risks involved can be  
overwhelming. You need a smarter  
approach to making the best choice  
possible. The HBR Guide to Making  
Better Decisions provides practical*

*tips and advice to help you generate more-creative ideas, evaluate your alternatives fairly, and make the final call with confidence. You'll learn how to: Overcome the cognitive biases that can skew your thinking  
Look at problems in new ways  
Manage the trade-offs between options  
Balance data with your own judgment  
React appropriately when you've made a bad choice  
Communicate your decision--and overcome any resistance  
Arm yourself with the advice you need to succeed on the job, from a source you trust. Packed with how-to essentials from leading experts, the HBR Guides provide smart answers to your most pressing work challenges.*

*Information Management: Gaining a Competitive Advantage with Data is about making smart decisions to make the most of company information. Expert author William McKnight develops the value proposition for information in the enterprise and succinctly outlines the numerous forms of data storage. Information Management will enlighten you, challenge your preconceived notions, and help activate information in the enterprise. Get the big picture on managing data so that your team can make smart decisions by understanding how everything from workload allocation to data stores fits together. The practical, hands-on guidance in this book includes: Part 1:*

*The importance of information management and analytics to business, and how data warehouses are used Part 2: The technologies and data that advance an organization, and extend data warehouses and related functionality Part 3: Big Data and NoSQL, and how technologies like Hadoop enable management of new forms of data Part 4: Pulls it all together, while addressing topics of agile development, modern business intelligence, and organizational change management Read the book cover-to-cover, or keep it within reach for a quick and useful resource. Either way, this book will enable you to master all of the possibilities for data or the broadest view across the*



*enterprise. Balances business and technology, with non-product-specific technical detail Shows how to leverage data to deliver ROI for a business Engaging and approachable, with practical advice on the pros and cons of each domain, so that you learn how information fits together into a complete architecture Provides a path for the data warehouse professional into the new normal of heterogeneity, including NoSQL solutions*

*Overviews enterprise system (ES) opportunities and challenges and suggests the ESs are not the right choice for every company. Provides a set of guidelines to help managers evaluate the benefits and risks of ES*

*implementation, stressing that an organization must make simultaneous changes in its information systems, business processes, and business strategy. Such changes are described in detail with extensive examples from real organizations, demonstrating that ESs should be viewed as business rather than technology projects.*

*Davenport is director of a consulting institute and professor of information management at Boston University.*

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*As a follow-up to the successful *Competing on Analytics*, authors Tom Davenport, Jeanne Harris, and Robert Morison provide practical frameworks and tools for all*

*companies that want to use analytics as a basis for more effective and more profitable decision making. Regardless of your company's strategy, and whether or not analytics are your company's primary source of competitive differentiation, this book is designed to help you assess your organization's analytical capabilities, provide the tools to build these capabilities, and put analytics to work. The book helps you answer these pressing questions: What assets do I need in place in my organization in order to use analytics to run my business? Once I have these assets, how do I deploy them to get the most from an analytic approach? How do I get an analytic initiative off the*

*ground in the first place, and then how do I sustain analytics in my organization over time? Packed with tools, frameworks, and all new examples, Analytics at Work makes analytics understandable and accessible and teaches you how to make your company more analytical.*

*Emerging Trends in Expert Applications and Security*

*Using SMART Big Data, Analytics and Metrics To Make Better Decisions and Improve Performance*

*Making Smarter Decisions When You Don't Have All the Facts*

*Mission Critical*

*Creating Value with Big Data*

*Analytics*

*5 Steps to Better Results*

*A Practical Guide to Using Business  
Rules and Predictive Analytics*

Discover the breakthrough tool your company can use to make winning decisions. This forward-thinking book addresses the emergence of predictive business analytics, how it can help redefine the way your organization operates, and many of the misconceptions that impede the adoption of this new management capability. Filled with case examples, *Predictive Business Analytics* defines ways in which specific industries have applied these techniques and tools and how

predictive business analytics can complement other financial applications such as budgeting, forecasting, and performance reporting. Examines how predictive business analytics can help your organization understand its various drivers of performance, their relationship to future outcomes, and improve managerial decision-making. Looks at how to develop new insights and understand business performance based on extensive use of data, statistical and quantitative analysis, and explanatory and predictive modeling. Written for senior financial

professionals, as well as general and divisional senior management. Visionary and effective, Predictive Business Analytics reveals how you can use your business's skills, technologies, tools, and processes for continuous analysis of past business performance to gain forward-looking insight and drive business decisions and actions.

Thought provoking - Time Magazine  
Welcome to the attention economy, in which the new scarcest resource isn't ideas or talent, but attention itself. This groundbreaking book argues that today's businesses are

headed for disaster-unless they overcome the dangerously high attention deficits that threaten to cripple today's workplace. Learn to manage this critical yet finite resource, or fail! "A worthy message" -Publishers Weekly

AUTHORBIO: Thomas H. Davenport is the Director of the Accenture Institute for Strategic Change and author of Process Innovation and Working Knowledge, Harvard Business School Press. John C. Beck is an Associate Partner and Senior Research Fellow at the Accenture Institute for Strategic Change.

"While business analytics

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sounds like a complex subject, this book provides a clear and non-intimidating overview of the topic. Following its advice will ensure that your organization knows the analytics it needs to succeed, and uses them in the service of key strategies and business processes. You too can go beyond reporting!"—Thomas H. Davenport, President's Distinguished Professor of IT and Management, Babson College; coauthor, *Analytics at Work: Smarter Decisions, Better Results Deliver the right decision support to the right people at the right time* Filled with

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examples and forward-thinking guidance from renowned BA leaders Gert Laursen and Jesper Thorlund, *Business Analytics for Managers* offers powerful techniques for making increasingly advanced use of information in order to survive any market conditions. Take a look inside and find: Proven guidance on developing an information strategy Tips for supporting your company's ability to innovate in the future by using analytics Practical insights for planning and implementing BA How to use information as a strategic asset Why BA is the next

stepping-stone for companies in the information age today  
Discussion on BA's ever-increasing role Improve your business's decision making.  
Align your business processes with your business's objectives. Drive your company into a prosperous future. Taking BA from buzzword to enormous value-maker, Business Analytics for Managers helps you do it all with workable solutions that will add tremendous value to your business.  
Enter the world of Internet of Things with the power of data science with this highly practical, engaging book About This Book Explore

real-world use cases from the Internet of Things (IoT) domain using decision science with this easy-to-follow, practical book Learn to make smarter decisions on top of your IoT solutions so that your IoT is smart in a real sense This highly practical, example-rich guide fills the gap between your knowledge of data science and IoT Who This Book Is For If you have a basic programming experience with R and want to solve business use cases in IoT using decision science then this book is for you. Even if your're a non-technical manager anchoring IoT projects, you can skip the

code and still benefit from the book. What You Will Learn Explore decision science with respect to IoT Get to know the end to end analytics stack – Descriptive + Inquisitive + Predictive + Prescriptive Solve problems in IoT connected assets and connected operations Design and solve real-life IoT business use cases using cutting edge machine learning techniques Synthesize and assimilate results to form the perfect story for a business Master the art of problem solving when IoT meets decision science using a variety of statistical and machine

learning techniques along with hands on tasks in R In Detail With an increasing number of devices getting connected to the Internet, massive amounts of data are being generated that can be used for analysis. This book helps you to understand Internet of Things in depth and decision science, and solve business use cases. With IoT, the frequency and impact of the problem is huge. Addressing a problem with such a huge impact requires a very structured approach. The entire journey of addressing the problem by defining it, designing the solution, and executing it using decision science is

articulated in this book through engaging and easy-to-understand business use cases. You will get a detailed understanding of IoT, decision science, and the art of solving a business problem in IoT through decision science. By the end of this book, you'll have an understanding of the complex aspects of decision making in IoT and will be able to take that knowledge with you onto whatever project calls for it

Style and approach This scenario-based tutorial approaches the topic systematically, allowing you to build upon what you learned in previous chapters.

Decision Management Systems  
Library Resources &  
Technical Services

Infonomics

Smarter Decisions, Better  
Results

HBR Guide to Making Better  
Decisions

HBR Guide to Data Analytics  
Basics for Managers (HBR  
Guide Series)

Data-First Marketing

***Knowing everything you can  
about each click to your  
Web site can help you make  
strategic decisions  
regarding your business.  
This book is about the  
why, not just the how, of  
web analytics and the  
rules for developing a***



"culture of analysis"  
inside your organization.  
Why you should collect  
various types of data. Why  
you need a strategy. Why  
it must remain flexible.  
Why your data must  
generate meaningful  
action. The authors answer  
these critical  
questions—and many  
more—using their decade of  
experience in Web  
analytics.  
The field of artificial  
intelligence (AI) and the  
law is on the cusp of a  
revolution that began with  
text analytic programs  
like IBM's Watson and

*Debater and the open-source information management architectures on which they are based. Today, new legal applications are beginning to appear and this book - designed to explain computational processes to non-programmers - describes how they will change the practice of law, specifically by connecting computational models of legal reasoning directly with legal text, generating arguments for and against particular outcomes, predicting outcomes and explaining*

these predictions with reasons that legal professionals will be able to evaluate for themselves. These legal applications will support conceptual legal information retrieval and allow cognitive computing, enabling a collaboration between humans and computers in which each does what it can do best. Anyone interested in how AI is changing the practice of law should read this illuminating work.

**Big Data is the biggest game-changing opportunity**

*for marketing and sales since the Internet went mainstream almost 20 years ago. The data big bang has unleashed torrents of terabytes about everything from customer behaviors to weather patterns to demographic consumer shifts in emerging markets. This collection of articles, videos, interviews, and slideshares highlights the most important lessons for companies looking to turn data into above-market growth: Using analytics to identify valuable business opportunities from the*

*data to drive decisions and improve marketing return on investment (MROI) Turning those insights into well-designed products and offers that delight customers Delivering those products and offers effectively to the marketplace. The goldmine of data represents a pivot-point moment for marketing and sales leaders. Companies that inject big data and analytics into their operations show productivity rates and profitability that are 5 percent to 6 percent*

*higher than those of their peers. That's an advantage no company can afford to ignore.*

*The book covers current developments in the field of expert applications and security, which employ advances of next-generation communication and computational technology to shape real-world applications. It gathers selected research papers presented at the ICETEAS 2018 conference, which was held at Jaipur Engineering College and Research Centre, Jaipur, India, on February 17-18,*

*2018. Key topics covered include expert applications and artificial intelligence; information and application security; advanced computing; multimedia applications in forensics, security and intelligence; and advances in web technologies: implementation and security issues.*

*Business Intelligence Journeys and the Roadmap for Change*

*Smarter Decisions - The Intersection of Internet of Things and Decision Science*

## ***Big Data***

***A Practical Guide to  
Making Better Decisions  
Mobility Patterns, Big  
Data and Transport  
Analytics***

***Thinking in Bets***

***Data Analytics***

***Applications in Education***

There is a misconception in business that the only data that matters is BIG data, and that elaborate tools and data scientists are required to extract any practical information. However, nothing could be further from the truth. If you feel that you can't understand how to read, let alone implement, these



complex software programs that crunch the data and spit out more data, that will no longer be a problem! Authors and analytics experts Piyanka Jain and Puneet Sharma demystify the process of business analytics and demonstrate how professionals at any level can take the information at their disposal and in only five simple steps--using only Excel as a tool--make the decision necessary to increase revenue, decrease costs, improve product, or whatever else is being asked of them at that time. In *Behind Every Good Decision*, you will learn how to:

Clarify the business question  
Lay out a hypothesis-driven  
plan Pull relevant data Convert  
it to insights Make decisions  
that make an impact Packed  
with examples and exercises,  
this refreshingly accessible  
book explains the four  
fundamental analytic  
techniques that can help solve  
a surprising 80 percent of all  
business problems. It doesn't  
take a numbers person to know  
that is a formula you need!  
Become confident in your  
choices. Where should I live? Is  
it time to get a new job? Which  
job candidate should I hire?  
What business strategy should  
I pursue? We spend the

majority of our lives making decisions, both big and small. Yet, even though our success is largely determined by the choices that we make, very few of us are equipped with useful decision-making skills. Because of this, we often approach our choices tentatively, or even fearfully, and avoid giving them the time and thought required to put our best foot forward. In *Smart Choices*, John Hammond, Ralph Keeney, and Howard Raiffa—experts with over 100 years of experience resolving complex decision problems—offer a proven, straightforward, and flexible roadmap for making better and

more impactful decisions, and offer the tools to achieve your goals in every aspect of your life. Their step-by-step, divide-and conquer approach will teach you how to:

- Evaluate your plans
- Break your potential decision into its key elements
- Identify the key drivers that are most relevant to your goals
- Apply systematic thinking
- Use the right information to make the smartest choice

Smart Choices doesn't tell you what to decide; it tells you how. As you routinely use the process, you'll become more confident in your ability to make decisions at work and at home.

And, more importantly, by applying its time-tested methods, you'll make better decisions going forward. Be proactive. Don't wait until a decision is forced on you—or made for you. Seek out decisions that advance your long-term goals, values, and beliefs. Take charge of your life by making Smart Choices a lifetime habit.

Gain the competitive edge with the smart use of business analytics In today's volatile business environment, the strategic use of business analytics is more important than ever. A Practitioners Guide to Business Analytics

helps you get the organizational commitment you need to get business analytics up and running in your company. It provides solutions for meeting the strategic challenges of applying analytics, such as: Integrating analytics into decision making, corporate culture, and business strategy Leading and organizing analytics within the corporation Applying statistical qualifications, statistical diagnostics, and statistical review Providing effective building blocks to support analytics—statistical software, data collection, and data management Randy Bartlett,

Ph.D., is Chief Statistical Officer of the consulting company Blue Sigma Analytics. He currently works with Infosys, where he has helped build their new Business Analytics practice. Unprecedented shifts in the age distribution and diversity of the global labor pool are underway. Within the decade, as the massive boomer generation begins to retire and fewer skilled workers are available to replace them, companies in industrialized markets will face a labor shortage and brain drain of dramatic proportions. Ken Dychtwald, Tamara Erickson, and Robert Morison argue that

companies ignore these shifts at great peril. Survival will depend on redefining retirement and transforming management and human resource practices to attract, accommodate, and retain workers of all ages and backgrounds. Based on decades of groundbreaking research and study, the authors present innovative and actionable management techniques for leveraging the knowledge of mature workers, reengaging disillusioned midcareer workers, and attracting and retaining talented younger workers. This timely book will help



organizations sustain their competitive edge in tomorrow's inevitably tighter labor markets.

Artificial Intelligence and Legal Analytics

Predictive Business Analytics

Reengineering Work Through Information Technology

Business Analytics for Managers

Big Data, Analytics, and the Future of Marketing & Sales

Implementing an Analytics Culture for Data Driven Decisions

Finding the Value of Intangibles in Business

*"International Institute for Analytics"--Dust*

jacket.

Many senior executives talk about information as one of their most important assets, but few behave as if it is. They report to the board on the health of their workforce, their financials, their customers, and their partnerships, but rarely the health of their information assets. Corporations typically exhibit greater discipline in tracking and accounting for their office furniture than

their data. Infonomics is the theory, study, and discipline of asserting economic significance to information. It strives to apply both economic and asset management principles and practices to the valuation, handling, and deployment of information assets. This book specifically shows: CEOs and business leaders how to more fully wield information as a corporate asset CIOs how to improve the flow and accessibility

*of information CFOs how to help their organizations measure the actual and latent value in their information assets. More directly, this book is for the burgeoning force of chief data officers (CDOs) and other information and analytics leaders in their valiant struggle to help their organizations become more infosavvy. Author Douglas Laney has spent years researching and developing Infonomics*

and advising organizations on the infinite opportunities to monetize, manage, and measure information. This book delivers a set of new ideas, frameworks, evidence, and even approaches adapted from other disciplines on how to administer, wield, and understand the value of information. Infonomics can help organizations not only to better develop, sell, and market their offerings, but to transform their

organizations  
altogether. "Doug Laney  
masterfully weaves  
together a collection of  
great examples with a  
solid framework to guide  
readers on how to gain  
competitive advantage  
through what he labels  
"the unruly asset" -  
data. The framework is  
comprehensive, the  
advice practical and the  
success stories global  
and across industries  
and applications." Liz  
Rowe, Chief Data  
Officer, State of New  
Jersey "A must read for

anybody who wants to survive in a data centric world." Shaun Adams, Head of Data Science, Betterbathrooms.com

"Phenomenal! An absolute must read for data practitioners, business leaders and technology strategists. Doug's lucid style has a set a new standard in providing intelligible material in the field of information economics. His passion and knowledge on the subject exudes thru his

*literature and inspires individuals like me."*

*Ruchi Rajasekhar,*

*Principal Data*

*Architect, MISO Energy*

*"I highly recommend Infonomics to all aspiring analytics leaders. Doug Laney's work gives readers a deeper understanding of how and why information should be monetized and managed as an enterprise asset. Laney's assertion that accounting should recognize information as a capital asset is quite convincing and one I*



agree with. Infonomics enjoyably echoes that sentiment!" Matt Green, independent business analytics consultant, Atlanta area "If you care about the digital economy, and you should, read this book." Tanya Shuckhart, Analyst Relations Lead, IRI Worldwide

Most companies have massive amounts of data at their disposal, yet fail to utilize it in any meaningful way. But a powerful new business tool - analytics - is

enabling many firms to aggressively leverage their data in key business decisions and processes, with impressive results. In their previous book, *Competing on Analytics*, Thomas Davenport and Jeanne Harris showed how pioneering firms were building their entire strategies around their analytical capabilities. Rather than "going with the gut" when pricing products, maintaining inventory, or hiring talent, managers in

these firms use data, analysis, and systematic reasoning to make decisions that improve efficiency, risk-management, and profits. Now, in *Analytics at Work*, Davenport, Harris, and coauthor Robert Morison reveal how any manager can effectively deploy analytics in day-to-day operations—one business decision at a time. They show how many types of analytical tools, from statistical analysis to qualitative measures like systematic

behavior coding, can improve decisions about everything from what new product offering might interest customers to whether marketing dollars are being most effectively deployed. Based on all-new research and illustrated with examples from companies including Humana, Best Buy, Progressive Insurance, and Hotels.com, this implementation-focused guide outlines the five-step DELTA model for deploying and succeeding

with analytical initiatives. You'll learn how to:

- Use data more effectively and glean valuable analytical insights
- Manage and coordinate data, people, and technology at an enterprise level
- Understand and support what analytical leaders do
- Evaluate and choose realistic targets for analytical activity
- Recruit, hire, and manage analysts

Combining the science of quantitative analysis

with the art of sound reasoning, *Analytics at Work* provides a road map and tools for unleashing the potential buried in your company's data. The business environment of the 1990s demands significant changes in the way we do business. Simply formulating strategy is no longer sufficient; we must also design the processes to implement it effectively. The key to change is process innovation, a revolutionary new

approach that fuses information technology and human resource management to improve business performance. The cornerstone to process innovation's dramatic results is information technology--a largely untapped resource, but a crucial "enabler" of process innovation. In turn, only a challenge like process innovation affords maximum use of information technology's potential. Davenport provides numerous

examples of firms that have succeeded or failed in combining business change and technology initiatives. He also highlights the roles of new organizational structures and human resource programs in developing process innovation. Process innovation is quickly becoming the byword for industries ready to pull their companies out of modest growth patterns and compete effectively in the world marketplace.



*Proceedings of ICETEAS  
2018  
Dispelling the Myths,  
Uncovering the  
Opportunities  
How to Monetize, Manage,  
and Measure Information  
as an Asset for  
Competitive Advantage  
Smart Choices  
Behind Every Good  
Decision  
Optimize Performance,  
Process, and Decisions  
Through Big Data  
Analytics at Work  
Mobility Patterns, Big  
Data and Transport  
Analytics provides a guide*

to the new analytical framework and its relation to big data, focusing on capturing, predicting, visualizing and controlling mobility patterns - a key aspect of transportation modeling. The book features prominent international experts who provide overviews on new analytical frameworks, applications and concepts in mobility analysis and transportation systems. Users will find a detailed, mobility 'structural' analysis and a look at the extensive

behavioral characteristics of transport, observability requirements and limitations for realistic transportation applications and transportation systems analysis that are related to complex processes and phenomena. This book bridges the gap between big data, data science, and transportation systems analysis with a study of big data's impact on mobility and an introduction to the tools necessary to apply new techniques. The book covers in detail, mobility

'structural' analysis (and its dynamics), the extensive behavioral characteristics of transport, observability requirements and limitations for realistic transportation applications, and transportation systems analysis related to complex processes and phenomena. The book bridges the gap between big data, data science, and Transportation Systems Analysis with a study of big data's impact on mobility, and an introduction to the tools

necessary to apply new techniques. Guides readers through the paradigm-shifting opportunities and challenges of handling Big Data in transportation modeling and analytics Covers current analytical innovations focused on capturing, predicting, visualizing, and controlling mobility patterns, while discussing future trends Delivers an introduction to transportation-related information advances, providing a benchmark reference by world-leading experts in the field

Captures and manages mobility patterns, covering multiple purposes and alternative transport modes, in a multi-disciplinary approach  
Companion website features videos showing the analyses performed, as well as test codes and data-sets, allowing readers to recreate the presented analyses and apply the highlighted techniques to their own data

Our newly digital world is generating an almost unimaginable amount of data about all of us. Such

a vast amount of data is useless without plans and strategies that are designed to cope with its size and complexity, and which enable organisations to leverage the information to create value. This book is a refreshingly practical, yet theoretically sound roadmap to leveraging big data and analytics. Creating Value with Big Data Analytics provides a nuanced view of big data development, arguing that big data in itself is not a revolution but an evolution of the

increasing availability of data that has been observed in recent times. Building on the authors' extensive academic and practical knowledge, this book aims to provide managers and analysts with strategic directions and practical analytical solutions on how to create value from existing and new big data. By tying data and analytics to specific goals and processes for implementation, this is a much-needed book that will be essential reading for students and specialists



of data analytics, marketing research, and customer relationship management.

Supercharge your marketing strategy with data analytics In *Data-First Marketing: How to Compete & Win in the Age of Analytics*, distinguished authors Miller and Lim demystify the application of data analytics to marketing in any size business. Digital transformation has created a widening gap between what the CEO and business expect marketing to do and what the CMO and the

marketing organization actually deliver. The key to unlocking the true value of marketing is data - from actual buyer behavior to targeting info on social media platforms to marketing's own campaign metrics. Data is the next big battlefield for not just marketers, but also for the business because the judicious application of data analytics will create competitive advantage in the Age of Analytics. Miller and Lim show marketers where to start by leveraging their

decades of experience to lay out a step-by-step process to help businesses transform into data-first marketing organizations. The book includes a self-assessment which will help to place your organization on the Data-First Marketing Maturity Model and serve as a guide for which steps you might need to focus on to complete your own transformation. Data-First Marketing: How to Compete & Win in the Age of Analytics should be used by CMOs and heads of marketing to institute a data-first approach

throughout the marketing organization. Marketing staffers can pick up practical tips for incorporating data in their daily tasks using the Data-First Marketing Campaign Framework. And CEOs or anyone in the C-suite can use this book to see what is possible and then help their marketing teams to use data analytics to increase pipeline, revenue, customer loyalty - anything that drives business growth.

The Attention Economy  
How Anyone Can Use

Business Analytics to Turn  
Data into Profitable  
Insight  
Competing on Analytics  
Actionable Web Analytics  
Harvard Business  
Essentials, Decision  
Making  
Using Data to Make Smart  
Business Decisions