

## Data Smart Science Transform Information

This book aims at offering a unique collection of ideas and experiences mainly focusing on the main streams and merger of Artificial Intelligence (AI) and the Internet of Things (IoT) for a wide slice of the communication and networking community. In the era when the world is grappling with many unforeseen challenges, scientists and researchers are envisioning smart cyber systems that guarantee sustainable development for a better human life. The main contributors that destined to play a huge role in developing such systems, among others, are AI and IoT. While AI provides intelligence to machines and data by identifying patterns, developing predictions, and detecting anomalies, IoT performs as a nerve system by connecting a huge number of machines and enormous arrays of data. Moreover, therefore, redefines the way industries, businesses, and economies interact with increased automation and efficiency and reduced human interaction and costs. This book is an attempt to publish innovative ideas, emerging trends, implementation experience, and use-cases pertaining to the merger of AI and IoT. The primary market of this book is centered around students, researchers, academicians, industrialists, entrepreneurs, and professionals working in electrical/computer engineering, IT, telecom/electronic engineering, and related fields. The secondary market of this book is related to individuals working in the fields such as finance, management, mathematics, physics, environment, mechatronics, and the automation industry.

This graduate-level text gives a thorough overview of the analysis of Boolean functions, beginning with the most basic definitions and proceeding to advanced topics.

**PROC SQL Beyond the Basics Using SAS®**, Third Edition, is a step-by-step, example-driven guide that helps readers master the language of PROC SQL. Packed with analysis and examples illustrating an assortment of PROC SQL options, statements, and clauses, this book not only covers all the basics, but it also offers extensive guidance on complex topics such as set operators and correlated subqueries. Programmers at all levels will appreciate Kirk Laffler's easy-to-follow examples, clear explanations, and handy tips to extend their knowledge of PROC SQL. This third edition explores new and powerful features in SAS® 9.4, including topics not as: IFC and IFN functions nearest neighbor processing the HAVING clause indexes It also features two completely new chapters on fuzzy matching and data-driven programming. Delving into the workings of PROC SQL with greater analysis and discussion, *PROC SQL: Beyond the Basics Using SAS®*, Third Edition, explores this powerful database language using discussion and numerous real-world examples.

Pulitzer Prize-winning author and astronomer Carl Sagan imagines the greatest adventure of all—the discovery of an advanced civilization in the depths of space. In December of 1999, a multinational team journeys out to the stars, to the most awesome encounter in human history. Who—or what—is out there? In *Cosmos*, Carl Sagan explained the universe. In *Contact*, he predicts its future—and our own.

Segmentation Analytics with SAS Viya

Why You Have Too Many Friends on Facebook, why Your Memory is Mostly Fiction, and 46 Other Ways You're Deluding Yourself

Analysis of Boolean Functions  
What Climate Science Tells Us, What It Doesn't, and Why It Matters

Data Smart

Ambient Urbanities as the Intersection Between the IoT and the IoP in Smart Cities

PROC SQL  
*SAS Visual Analytics is a business intelligence and analytics platform that provides visual exploration and discovery, self-service analytics, and interactive reporting for organizations of all sizes. All organizations have a wide variety of users, and each user needs something different from data and analytics. SAS Visual Analytics allows everyone to easily discover and share powerful insights that inspire action. Several useful papers have been written to demonstrate how to use these techniques. We have carefully selected a handful of these from recent Global Forum contributions to introduce you to the topic and let you sample what each has to offer. Also available free as a PDF from sas.com/books.*

*So You Think You're Smart is an eclectic collection of word games, riddles and logic puzzles to tantalize, tease and boggle the brains of readers of all ages and educational levels. The brain teasers are about ordinary words and things that everybody knows about so only common sense and a bit of resourcefulness are needed to solve them. The book is in its 17th printing and has appeared on Saturday Night Live. Better understand your customers using segmentation analytics in SAS Viya! Segmentation Analytics with SAS Viya: An Approach to Clustering and Visualization demonstrates the use of clustering and machine learning methods for the purpose of segmenting customer or client data into useful categories for marketing, market research, next best offers by segment, and more. This book highlights the latest and greatest methods available that show the power of SAS Viya while solving typical industry issues. Packed with real-world examples, this book provides readers with practical methods of using SAS Visual Data Mining and Machine Learning (VDMML), SAS Visual Analytics, SAS Studio for segmentation model development and analysis. This book is designed for analysts, data miners, and data scientists who need to use the all in-memory platform of SAS Viya for the purposes of clustering and segmentation. Understanding how customers behave is a primary objective of most organizations, and segmentation is a key analytic method for achieving that objective.*

*Modern day and technology-rich environments require a reconceptualization of how the nature of technology influences urban areas. Rethinking the way we apply these technologies will not only alter the way people communicate and interact, but it will also alter how individuals learn and explore the world around them. Ambient Urbanities as the Intersection Between the IoT and the IoP in Smart Cities offers insights about the ambient in 21st century smart cities, learning cities, responsive cities, and future cities, and highlights the importance of people as critical to the urban fabric of smart cities that are increasingly embedded with pervasive and often invisible technologies. The book, based on an urban research study, explores urbanity from multiple perspectives ranging from the cultural to the geographic. While highlighting topics including digital literacies, smarter governance, and information architectures, this book is ideally designed for students, educators, researchers, the business community, city government staff and officials, urban practitioners, and those concerned with contemporary and emerging complex urban challenges and opportunities.*

**So You Think You're Smart**

*The Internet of Things Unsettled*

*Statistical Inference Via Data Science*

*Smart City Citizenship Inclusion on Purpose*

*Beyond the Basics Using SAS, Third Edition*

SAS Programming for R Users, based on the free SAS Education course of the same name, is designed for experienced R users who want to transfer their programming skills to SAS. Emphasis is on programming and not statistical theory or interpretation. You will learn how to write programs in SAS that replicate familiar functions and capabilities in R. This book covers a wide range of topics including the basics of the SAS programming language, how to import data, how to create new variables, random number generation, linear modeling, Interactive Matrix Language (IML), and many other SAS procedures. This book also explains how to write R code directly in the SAS code editor for seamless integration between the two tools. Exercises are provided at the end of each chapter so that you can test your knowledge and practice your programming skills.

A guide for using computational text analysis to learn about the social world. From social media posts and text messages to digital government documents and archives, researchers are bombarded with a deluge of text reflecting the social world. This textual data gives unprecedented insights into fundamental questions in the social sciences, humanities, and industry. Meanwhile new machine learning tools are rapidly transforming the way science and business are conducted. Text as Data shows how to combine new sources of data, machine learning tools, and social science research design to develop and evaluate new insights. Text as Data is organized around the core tasks in research projects using text–representation, discovery, measurement, prediction, and causal inference. The authors offer a sequential, iterative, and inductive approach to research design. Each research task is presented complete with real-world applications, example methods, and a distinct style of task-focused research. Bridging many divides—computer science and social science, the qualitative and the quantitative, and industry and academia–Text as Data is an ideal resource for anyone wanting to analyze large collections of text in an era when data is abundant and computation is cheap, but the enduring challenges of social science remain. Overview of how to use text as data Research design for a world of data deluge Examples from across the social sciences and industry

When the American Ambassador to Iraq announces her true identity and sparks the Arab Revolution and Reformation of Islam on a global scale, the world is turned upside down. "Safina" is the first book in a trilogy that spans three generations of thrilling intrigue and battles, and tells her story of courageous commitment to the struggle for freedom around the globe. From Safina's cruel beginning as an abused eleven year old child bride in the deserts of Iraq, to the highest society of European aristocracy and power, she joins forces with Lieutenant Colonel, Brecken Petersen, a United States Marine Special Forces combat-hardened veteran, and takes her position as the most powerful leader on the planet. She fights every inch of her way from Basra to Amsterdam, and to Paris, on to Washington DC and finally to Egypt. She establishes the UFAS, (United Federation of Arab States), and recruits member states around the world to join the UFN (United Free Nations). Safina and her fellow revolutionaries fight to liberate Islam from 1400 years of barbaric enslavement of half its population - women. The United States Government is in flux, on the verge of civil war. Europe is wounded, and pockets of serious counter insurgencies continue to be a source of concern. Safina recruits Claude Molyneau, a world banker and financier who attempts to restore the financial foundations of Europe, and the monetary solvency of the United States. Readers who relish intrigue and espionage will like this novel. Those who appreciate a sophisticated love story will be engaged with all of their emotional and erotic senses. Individuals who thrill to the perfectly choreographed hand-to-hand combat and the expert use of martial arts and sophisticated weaponry will be in their element. Science geeks will recognize state-of-the-art new technologies that will be deployed in the near future. Political junkies will revel in the behind-the-scenes machinations that propel the world to the brink of ruination. They will glimpse what is likely to occur when Iran achieves nuclear weapons and an effective delivery system to attack Israel.Safina survives multiple attempts on her life until the last page of this book when it seems that all may be lost except.....

How organizations can foster diversity, equity, and inclusion: taking action to address and prevent workplace bias while centering women of color. Few would disagree that inclusion is both the right thing to do and good for business. Then why are we so terrible at it? If we believe in the morality and the profitability of including people of diverse and underestimated backgrounds in the workplace, why don't we do it? Because, explains Ruchika Tulshyan in this eye-opening book, we don't realize that inclusion takes awareness, intention, and regular practice. Inclusion doesn't just happen; we have to work at it. Tulshyan presents inclusion best practices, showing how leaders and organizations can meaningfully promote inclusion and diversity. Tulshyan centers the workplace experience of women of color, who are subject to both gender and racial bias. It is at the intersection of gender and race, she shows, that we discover the kind of inclusion policies that benefit all. Tulshyan debunks the idea of the "level playing field" and explains how leaders and organizations can use their privilege for good by identifying and exposing bias, knowing that they typically have less to lose in speaking up than a woman of color does. She explains why "leaning in" doesn't work—and dismantling structural bias does; warns against hiring for "culture fit," arguing for "culture add" instead; and emphasizes the importance of psychological safety in the workplace—you need to know that your organization has your back. With this important book, Tulshyan shows us how we can make progress toward inclusion and diversity—and we must start now.

ICT for Smart Water Systems: Measurements and Data Science

Decoding the Patterns of Human Connection

Visual Analytics with SAS Viya

Learning SAS by Example

Social Chemistry

The World-renowned Scientists who Stood Up Against Global Warming Hysteria, Political Persecution, and Fraud

An Intersectional Approach to Creating a Culture of Belonging at Work

Explains how self-delusion is part of a person's psychological defense system, identifying common misconceptions people have on topics such as caffeine withdrawal, hindsight, and brand loyalty.

Data Science gets thrown around in the press like it's magic. Major retailers are predicting everything from when their customers are pregnant to when they want a new pair of Chuck Taylors. It's a brave new world where seemingly meaningless data can be transformed into valuable insight to drive smart business decisions. But how does one exactly do data science? Do you have to hire one of those priests of the dark arts, the "data scientist," to extract this gold from your data? Nope. Data science is little more than using straight-forward steps to process raw data into actionable insight. And in *Data Smart*, author and data scientist John Foreman will show you how that's done within the familiar environment of a spreadsheet. Why a spreadsheet? It's comfortable! You get to look at the data every step of the way, building confidence as you learn the tricks of the trade. Plus, spreadsheets are a vendor-neutral place to learn data science without the hype. But don't let the Excel sheets fool you. This is a book for those serious about learning the analytic techniques, the math and the magic, behind big data. Each chapter will cover a different technique in a spreadsheet so you can follow along: Mathematical optimization, including non-linear programming and genetic algorithms Clustering via k-means, spherical k-means, and graph modularity Data mining in graphs, such as outlier detection Supervised AI through logistic regression, ensemble models, and bag-of-words models Forecasting, seasonal adjustments, and prediction intervals Moving from spreadsheets into the R programming language You get your hands dirty as you work alongside John through each technique.

Beep, beep, fear, the topic is really applicable and the author laces humor throughout. You'll even learn what a dead squirrel has to do with optimization modeling, which you no doubt are dying to know.

National Geographic's riveting narrative explores the world of placebo, hypnosis, false memories, and neurology to reveal the groundbreaking science of our suggestible minds. Could the secrets to personal health lie within our own brains? Journalist Erik Vance explores the surprising ways our expectations and beliefs influence our bodily responses to pain, disease, and everyday events. Drawing on centuries of research and interviews with leading experts in the field, Vance takes us on a fascinating adventure from Harvard's research labs to a witch doctor's office in Catemaco, Mexico, to an alternative medicine school near Beijing (often called "China's Hogwarts"). Vance's firsthand dispatches will change the way you think—and feel. Expectations, beliefs, and self-deception can actively change our bodies and minds. Vance builds a case for our "internal pharmacy"—the very real chemical reactions our brains produce when we think we are experiencing pain or healing, actual or perceived. Supporting this idea is centuries of placebo research in a range of forms, from sugar pills to shock waves; studies of alternative medicine techniques heralded and condemned in different parts of the world (think crystals and chakras); and most recently, major advances in brain mapping technology. Thanks to this technology, we're learning how we might leverage our suggestibility (or lack thereof) for personalized medicine, and Vance brings us to the front lines of such study.

The difference between helping and selling is just two letters if you're wondering how to make your products seem more exciting online, you're asking the wrong question. You're not competing for attention only against other similar products. You're competing against your customers' friends and family and viral videos and cute puppies. To win attention these days you must ask a different question: "How can we help?" Jay Baer's *YouTility* offers a new approach that cuts through the clutter: marketing that is truly, inherently useful. If you sell something, you make a customer today, but if you genuinely help someone, you create a customer for life.

A ModernDive Into R and the Tidverse

An Approach to Clustering and Visualization

The Deniers

Using Data for Public Good

The Fourth Industrial Revolution

Machine Learning, Big Data, and IoT for Medical Informatics

Why Smart Marketing is about Help Not Hype

Learn to program SAS by example! Learning SAS by Example, A Programmer 's Guide, Second Edition, teaches SAS programming from very basic concepts to more advanced topics. Because most programmers prefer examples rather than reference-type syntax, this book uses short examples to explain each topic. The second edition has brought this classic book on SAS programming up to the latest SAS version, with new chapters that cover topics such as PROC SGFLOT and Perl regular expressions. This book belongs on the shelf (or e-book reader) of anyone who programs in SAS, from those with little programming experience who want to learn SAS to intermediate and even advanced SAS programmers who want to learn new techniques or identify new ways to accomplish existing tasks. In an instructive and conversational tone, author Ron Cody clearly explains each programming technique and then illustrates it with one or more real-life examples, followed by a detailed description of how the program works. The text is divided into four major sections: Getting Started, DATA Step Processing, Presenting and Summarizing Your Data, and Advanced Topics. Subjects addressed include Reading data from external sources Learning details of DATA step programming Subsetting and combining SAS data sets Understanding SAS functions and working with arrays Creating reports with PROC REPORT and PROC TABULATE Getting started with the SAS macro language Leveraging PROC SQL Generating high-quality graphics Using advanced features of user-defined formats and informats Restructuring SAS data sets Working with multiple observations per subject Getting started with Perl regular expressions You can test your knowledge and hone your skills by solving the problems at the end of each chapter.

The human brain has some capabilities that the brains of other animals lack. It is to these distinctive capabilities that our species owes its dominant position. Other animals have stronger muscles or sharper claws. But we have cleverer brains. If machine brains one day come to surpass human brains in general intelligence, then this new superintelligence could become very powerful. As the fate of the gorillas now depends more on us humans than on the gorillas themselves, so the fate of our species then would come to depend on the actions of the machine superintelligence. But we have one advantage: we are free to make the first move. Will it be possible to construct a seed AI or otherwise to engineer initial conditions so as to make an intelligence explosion survivable? How could one achieve a controlled detonation? To get closer to an answer to this question, we must make our way through a fascinating landscape of topics and considerations. Read the book and learn about oracles, genies, singletons, about boxing methods, tripwires, and mind crime; about humanity's cosmic endowment and differential technological development; indirect normativity, instrumental convergence, whole brain emulation and technology couplings; Malthusian economics and dystopian evolution; artificial intelligence, and biological cognitive enhancement, and collective intelligence.

Turn analytical models into business value and smarter decisions with this special collection of papers about SAS Model Management. Without a structured and standardized process to integrate and coordinate all the different pieces of the model life cycle, a business can experience increased costs and missed opportunities. SAS Model Management solutions enable organizations to register, test, deploy, monitor, and retract analytical models, leveraging any available technology - including open-source models in Python, R, and TensorFlow -into a competitive advantage.

Data SmartUsing Data Science to Transform Information into InsightJohn Wiley & Sons

A New Framework for Machine Learning and the Social Sciences

Paths, Dangers, Strategies

Big Data and Smart Service Systems

Special Collection

A Roadmap for Urban Transformation

How Science and Kindness Help People Change

Social Physics

“One of the most interesting and useful books ever written on networking.”–Adam Grant Social Chemistry will utterly transform the way you think about “networking.” Understanding the contours of your social network can dramatically enhance personal relationships, work life, and even your global impact. Are you an Expansionist, a Broker, or a Convener? The answer matters more than you think. . . . Yale professor Marissa King shows how anyone can build more meaningful and productive relationships based on insights from neuroscience, psychology, and network analytics. Conventional wisdom says it's the size of your network that matters, but social science research has proven there is more to it. King explains that the quality and structure of our relationships has the greatest impact on our personal and professional lives. As she illustrates, there are three basic types of networks, so readers can see the role they are already playing: Expansionist, Broker, or Convener. This network decoder enables readers to own their network style and modify it for better alignment with their life plans and values. High-quality connections in your social network strongly predict cognitive functioning, emotional resilience, and satisfaction at work. A well-structured network is likely to boost the quality of your ideas, as well as your pay. Beyond the office, social connections are the lifeblood of our health and happiness. The compiled results from dozens of previous studies found that our social relationships have an effect on our likelihood of dying prematurely—equivalent to obesity or smoking. Rich stories of Expansionists like Vernon Jordan, Brokers like Yo-Yo Ma, and Conveners like Anna Wintour, as well as personal experiences from King's own world of connections, inform this warm, engaging, revelatory investigation into some of the most consequential decisions we can make about the trajectory of our lives.

From one of the world's leading data scientists, a landmark tour of the new science of idea flow, offering revolutionary insights into the mysteries of collective intelligence and social influence If the Big Data revolution has a presiding genius, it is MIT's Alex “Sandy” Pentland. Over years of groundbreaking experiments, he has distilled remarkable discoveries significant enough to become the bedrock of a whole new scientific field: social physics. Humans have more in common with bees than we like to admit: We're social creatures first and foremost. Our most important habits of actions and most basic notions of common sense—are wired into us through our coordination in social groups. Social physics is about idea flow, the way human social networks spread ideas and transform those ideas into behaviors. Thanks to the millions of digital breadcrumb crumbs people leave behind via smartphones, GPS devices, and the Internet, the amount of new information we have about human activity is truly profound. Until now, sociologists have depended on limited data sets and surveys that tell us how people say they think and behave, rather than what they actually do. As a result, we've been stuck with the same stale social structures—classes, markets—and a focus on individual actors, data snapshots, and steady states. Pentland shows that, in fact, humans respond much more powerfully to social incentives that involve rewarding others and strengthening the ties that bind than incentives that involve only their own economic self-interest. Pentland and his teams have found that they can study patterns of information exchange in a social network without any knowledge of the actual content of the information and predict with stunning accuracy how productive and effective that network is, whether it's a business or an entire city. We can maximize a group's collective intelligence to improve performance and use social incentives to create new organizations and guide them through disruptive change in a way that maximizes the good. At every level of interaction, from small groups to large cities, social networks can be tuned to increase exploration and engagement, thus vastly improving idea flow. Social Physics will change the way we think about how we learn and how our social groups work—and can be made to work better, at every level of society. Pentland leads readers to the edge of the most important revolution in the study of social behavior in a generation, an entirely new way to look at life itself.

How to use data as a tool for empowerment rather than oppression. Big data can be used for good, from tracking disease to exposing human rights violations, and for bad, implementing surveillance and control. Data inevitably represents the ideologies of those who control its use; data analytics and algorithms too often exclude women, the poor, and ethnic groups. In *Data Action*, Sarah Williams provides a guide for working with data in more ethical and responsible ways. Too often data has been used—and manipulated—to make policy decisions without much stakeholder input. Williams outlines a method that emphasizes collaboration among data scientists, policy experts, data designers, and the public. This approach creates trust and co-ownership in the data by opening the process to those who know the issues best.

Today, Information and Communication Technologies (ICT) have a pervasive presence in almost every aspect of the management of water. There is no question that the collection of big data from sensing and the insights gained by smart analytics can bring massive benefits. This book focuses on new perspectives for the monitoring, assessment and control of water systems, based on tools and concepts originating from the ICT sector. It presents a portrait of up-to-date sensing techniques for water, and introduces concepts and implications with the analysis of the acquired data. Particular attention is given to the advancements in developing novel devices and data processing approaches. The chapters guide the reader through multiple disciplinary contexts, without aiming to be exhaustive, but with the effort to present relevant topics in such a highly multi-disciplinary framework. This book will be of interest to advanced students, researchers and stakeholders at various levels.

SAS and Open-Source Model Management

A Programmer's Guide, Second Edition

Safina

150 Fun and Challenging Brain Teasers

A Fusion of Artificial Intelligence and Internet of Things for Emerging Cyber Systems

Data Action

Latin American Women and Research Contributions to the IT Field

Data may be the most valuable resource that your organization owns. None of the promise of AI is possible without the ability to access, integrate, and transform data. SAS is intent on fundamentally changing the way our customers perform data management because changes in consumer expectations, and technology that drive them, continue to evolve at an incredible rate. SAS offers many different data management solutions to handle and protect your data. The papers included in this special collection demonstrates the latest tools and techniques that can benefit your data analysis. Also available free as a PDF from sas.com/books.

Eminent environmentalist Solomon set out to find whether any real scientists diverged from global warming orthodoxy. This fully revised new edition features two new chapters that present fresh expos on climate profiteers and global warming affirmers.

Computer vision is a field of artificial intelligence that trains computers to interpret and understand the visual world. In recent years, computer vision has begun to rival and even surpass human visual abilities in many areas. SAS offers many different solutions to train computers to “see” by identifying and classifying objects, and several groundbreaking papers have been written to demonstrate these techniques. The papers included in this special collection demonstrate how the latest computer vision tools and techniques can be used to solve a variety of business problems.

Big Data and Smart Service Systems presents the theories and applications regarding Big Data and smart service systems, data acquisition, smart cities, business decision-making support, and smart service design. The rapid development of computer and Internet technologies has led the world to the era of Big Data. Big Data technologies are widely used, which has brought unprecedented impacts on traditional industries and lifestyle. More and more governments, business sectors, and institutions begin to realize data is becoming the most valuable asset and its analysis is becoming the core competitiveness. Describes the frontier of service science and motivates a discussion among readers on a multidisciplinary subject areas that explores the design of smart service. Illustrates the concepts, framework, and application of big data and smart service systems Demonstrates the crucial role of smart service to promote the transformation of the regional and global economy

So You Think You're Smart

SAS Programming for R Users

You are Not So Smart

Computer Vision with SAS

The Curious Science of Your Brain's Ability to Deceive, Transform, and Heal

TEXT ANALYTICS WITH SAS

Contact

Data Science gets thrown around in the press like it's magic. Major retailers are predicting everything from when their customers are pregnant to when they want a new pair of Chuck Taylors. It's a brave new world where seemingly meaningless data can be transformed into valuable insight to drive smart business decisions. But how does one exactly do data science? Do you have to hire one of those priests of the dark arts, the "data scientist," to extract this gold from your data? Nope. Data science is little more than using straight-forward steps to process raw data into actionable insight. And in *Data Smart*, author and data scientist John Foreman will show you how that's done within the familiar environment of a spreadsheet. Why a spreadsheet? It's comfortable! You get to look at the datavevery step of the way, building confidence as you learn the tricksof the trade. Plus, spreadsheets are a vendor-neutral place to learn data science without the hype. But don't let the Excel sheets fool you. This is a book for those serious about learning the analytic techniques, the math andthe magic, behind big data. Each chapter will cover a different technique in a spreadsheet so you can follow along: Mathematical optimization, including non-linear programming andgenetic algorithms Clustering via k-means, spherical k-means, and graphmodularity Data mining in graphs, such as outlier detection Supervised AI through logistic regression, ensemble models, and bag-of-words models Forecasting, seasonal adjustments, and prediction intervals Moving from spreadsheets into the R programming language You get your hands dirty as you work alongside John through each technique. But never fear, the topics are really applicable andthe author laces humor throughout. You'll even learnwhat a dead squirrel has to do with optimization modeling, whichyou no doubt are dying to know.

"Unsettled is a remarkable book—probably the best book on climate change for the intelligent layperson—that achieves the feat of conveying complex information clearly and in depth."—Claremont Review of Books "Surging sea levels are inundating the coasts." "Hurricanes and tornadoes are becoming fiercer and more frequent." "Climate change will be an economic disaster." You've heard all this presented as fact. But according to science, all of these statements are profoundly misleading. When it comes to climate change, the media, politicians, and other prominent voices have declared that "the science is settled." In reality, the long game of telephone from research to reports to the popular media is corrupted by misunderstanding and misinformation. Core questions—about the way the climate is responding to our influence, and what the impacts will be—remain largely unanswered. The climate is changing, but the why and how aren't as clear as you've probably been led to believe. Now, one of America's most distinguished scientists is clearing away the fog to explain what is causing our changing climate. In *Unsettled: What Climate Science Tells Us, What It Doesn't, and Why It Matters*, Steven Koonin draws upon his decades of experience—including as a top science advisor to the Obama administration—to provide up-to-date insights and expert perspective free from political agendas. Fascinating, clear-headed, and full of surprises, this book gives readers the tools to both understand the climate issue and be savvier consumers of science media in general. Koonin takes readers behind the headlines to the more nuanced science itself, showing us where it comes from and guiding us through the implications of the evidence. He dispels popular myths and unveils little-known truths: despite a dramatic rise in greenhouse gas emissions, global temperatures actually decreased from 1940 to 1970. What's more, the models we use to predict the future aren't able to accurately describe the climate of the past, suggesting they are deeply flawed. Koonin also tackles society's response to a changing climate, using data-driven analysis to explain why many proposed "solutions" would be ineffective, and discussing how alternatives like adaptation and, if necessary, geoengineering will ensure humanity continues to prosper. *Unsettled* is a reality check buoyed by hope, offering the truth about climate science that you aren't getting elsewhere—what we know, what we don't, and what it all means for our future.

Between the 18th and 19th centuries, Britain experienced massive leaps in technological, scientific, and economical advancement

This invaluable addition to any data scientist's library shows you how to apply the R programming language and useful statistical techniques to everyday business situations as well as how to effectively present results to audiences of all levels. To answer the ever-increasing demand for machine learning and analysis, this new edition boasts additional R tools, modeling techniques, and more. *Practical Data Science with R*, Second Edition takes a practice-oriented approach to explaining basic principles in the ever-expanding field of data science. You'll jump right to real-world use cases as you apply the R programming language and statistical analysis techniques to carefully explained examples based in marketing, business intelligence, and decision support. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Daughter of Islam

Implementing Data-Driven Strategies in Smart Cities

Text as Data

Cautionary Tales in Designed Experiments

Beyond Addiction

Using Data Science to Transform Information into Insight

*Smart City Citizenship* provides rigorous analysis for academicians and policymakers on the experimental, data-driven, and participatory processes of smart cities to help integrate ICT-related social innovation into urban life. Unlike other smart city books that are often edited collections, this book focuses on the business domain, grassroots social innovation, and AI-driven algorithmic and techno-political disruptions, also examining the role of citizens and the democratic governance issues raised from an interdisciplinary perspective. As smart city research is a fast-growing topic of scientific inquiry and evolving rapidly, this book is an ideal reference for a much-needed discussion. The book drives the reader to a better conceptual and applied comprehension of smart city citizenship for democratised hyper-connected-viralised post-COVID-19 societies. In addition, it provides a whole practical roadmap to build smart city citizenship inclusive and multistakeholder interventions through intertwined chapters of the book. Users will find a book that fills the knowledge gap between the purely critical studies on smart cities and those further constructive and highly promising socially innovative interventions using case study fieldwork action research empirical evidence drawn from several cities that are advancing and innovating smart city practices from the citizenship perspective. Utilises ongoing, action research fieldwork, comparative case studies for examining current governance issues, and the role of citizens in smart cities Provides definitions of new key citizenship concepts, along with a techno-political framework and toolkit drawn from a community-oriented perspective Shows how to design smart city governance initiatives, projects and policies based on applied research from the social innovation perspective Highlights citizen's perspective and social empowerment in the AI-driven and algorithmic disruptive post-COVID-19 context in both transitional and experimental frameworks

"Statistical Inference via Data Science: A ModernDive into R and the Tidverse provides a pathway for learning about statistical inference using data science tools widely used in industry, academia, and government. It introduces the tidyverse suite of R packages, including the ggplot2 package for data visualization, and the dplyr package for data wrangling. After equipping readers with just enough of these data science tools to perform effective exploratory data analyses, the book covers traditional introductory statistics topics like confidence intervals, hypothesis testing, and multiple regression modeling, while focusing on visualization throughout."—

Although the effort to involve women in engineering has risen in recent years with the creation of new initiatives and the promotion of inclusion in technical disciplines, the active participation of women in engineering professions is continuously lower than expected. While the need for engineers appears to be constantly increasing, women still do not fill most of this role and have a long way to go to even reach an equal split in the field. This gender gap has a significant impact how women in the STEM fields are perceived as well as

their experiences in their education and careers. When it comes to Latin American women in IT, their contribution to science can go unnoticed, their participation levels in these fields are very low, and they often occupy lower-level positions than their male counterparts. These issues need to be discussed, and the experiences of women who work in the field must be shared. Latin American Women and Research Contributions to the IT Field highlights the important role of Latin American women in IT by collecting and disseminating their frontier-research contributions in order to provide more visibility and inspire greater participation of Latin American women within the major field of computer science. With chapters contributed by female authors from eight Latin American and Caribbean countries, the book provides a deep analysis of these women's trajectory paths to high quality theoretical and applied relevant research in computer science and IT. While highlighting areas such as inclusivity and STEM education, along with advancements and achievements in topics that include nonverbal interaction in virtual reality, fuzzy logic applications in education, and ant colony optimization, this book is ideal for professionals, academics, students, and researchers working in the fields of information technologies and computer science as well as those interested in gender and women's studies.

Implementing Data-Driven Strategies in Smart Cities is a guidebook and roadmap for practitioners seeking to operationalize data-driven urban interventions. The book opens by exploring the revolution that big data, data science, and the Internet of Things are making feasible for the city. It explores alternate topologies, typologies, and approaches to operationalize data science in cities, drawn from global examples including top-down, bottom-up, greenfield, brownfield, issue-based, and data-driven. It channels and expands on the classic data science model for data-driven urban interventions – data capture, data quality, cleansing and curation, data analysis, visualization and modeling, and data governance, privacy, and confidentiality. Throughout, illustrative case studies demonstrate successes realized in such diverse cities as Barcelona, Cologne, Manila, Miami, New York, Nancy, Nice, São Paulo, Seoul, Singapore, Stockholm, and Zurich. Given the heavy emphasis on global case studies, this work is particularly suitable for any urban manager, policymaker, or practitioner responsible for delivering technological services for the public sector from sectors as diverse as energy, transportation, pollution, and waste management. Explores numerous specific urban interventions drawn from global case studies, helping readers understand real urban challenges and create data-driven solutions Provides a step-by-step and applied holistic guide and methodology for immediate application in the reader's own business agenda Presents cutting edge technology presentation with coverage of innovations such as the Internet of Things, robotics, 5G, edge/fog computing, blockchain, intelligent transport systems, and connected-automated mobility

Youtility

Data Management with SAS

How Social Networks Can Make Us Smarter

Superintelligence

Practical Data Science with R

The beauty of DOE is about learning—from mistakes, from trying new things, and from working with others. Cautionary Tales in Designed Experiments aims to explain statistical design of experiments (DOE), Ronald Fisher's great innovation, to readers with minimal mathematical knowledge and skills. The book starts with historical examples and goes on to cover missteps, mismanaged experiments, learnings, the importance of randomization, and more. In later chapters, the book covers more statistical concepts, such as various designs for experiments, analysis of variance, Bayes' theorem in DOE, measurement, and when experiments fail. The book concludes by citing the ubiquity of statistical design of experiments.

A guided tour through the Internet of Things, a networked world of connected devices, objects, and people that is changing the way we live and work. We turn on the lights in our house from a desk in an office miles away. Our refrigerator alerts us to buy milk on the way home. A package of cookies on the supermarket shelf suggests that we buy it, based on past purchases. The cookies themselves are on the shelf because of a "smart" supply chain. When we get home, the thermostat has already adjusted the temperature so that it's toasty or bracing, whichever we prefer. This is the Internet of Things—a networked world of connected devices, objects, and people. In this book, Samuel Greengard offers a guided tour through this emerging world and how it will change the way we live and work. Greengard explains that the Internet of Things (IoT) is still in its early stages. Smart phones, cloud computing, RFID (radio-frequency identification) technology, sensors, and miniaturization are converging to make possible a new generation of embedded and immersive technology. Greengard traces the origins of the IoT from the early days of personal computers and the Internet and examines how it creates the conceptual and practical framework for a connected world. He explores the industrial Internet and machine-to-machine communication, the basis for smart manufacturing and end-to-end supply chain visibility; the growing array of smart consumer devices and services—from Fitbit fitness wristbands to mobile apps for banking; the practical and technical challenges of building the IoT; and the risks of a connected world, including a widening digital divide and threats to privacy and security. Finally, he considers the long-term impact of the IoT on society, narrating an eye-opening "Day in the Life" of IoT connections circa 2025.

Leading innovators in progressive addiction treatment outline a science-based program for overcoming addiction-related problems, demonstrating how to effectively use positive reinforcement and motivational and behavioral strategies. (Self-Help)

Machine Learning, Big Data, and IoT for Medical Informatics focuses on the latest techniques adopted in the field of medical informatics. In medical informatics, machine learning, big data, and IoT-based techniques play a significant role in disease diagnosis and its prediction. In the medical field, the structure of data is equally important for accurate predictive analytics due to heterogeneity of data such as ECG data, X-ray data, and image data. Thus, this book focuses on the usability of machine learning, big data, and IoT-based techniques in handling structured and unstructured data. It also emphasizes on the privacy preservation techniques of medical data. This volume can be used as a reference book for scientists, researchers, practitioners, and academicians working in the field of intelligent medical informatics. In addition, it can also be used as a reference book for both undergraduate and graduate courses such as medical informatics, machine learning, big data, and IoT. Explains the uses of CNN, Deep Learning and extreme machine learning concepts for the design and development of predictive diagnostic systems. Includes several privacy preservation techniques for medical data. Presents the integration of Internet of Things with predictive diagnostic systems for disease diagnosis. Offers case studies and applications relating to machine learning, big data, and health care analysis.