

## Total Value Optimization Transforming Your Global Supply Chain Into A Competitive Weapon

It's no secret that you can't improve your organization's performance without measuring it. In fact, every function, unit, process, and the organization as a whole, is built and run according to the parameters and expectations of its measurement system. So you'd better make sure you're doing it right. All too often, performance measurement creates dysfunction, whether among individuals, teams, or across entire divisions and companies. Most traditional measurement systems actually encourage unhealthy competition for personal gain, creating internal conflict and breeding distrust of performance measurement. Transforming Performance Measurement presents a breakthrough approach that will not only significantly reduce those dysfunctions, but also promote alignment with business strategy, maximize cross-enterprise integration, and help everyone to work collaboratively to drive value throughout your organization. Performance improvement thought leader Dean Spitzer explains why performance measurement should be less about calculations and analysis and more about the crucial social factors that determine how well the measurements get used. His "socialization of measurement" process focuses on learning and improvement from measurement, and on the importance of asking such questions as: How well do our measures reflect our business model? How successfully are they driving our strategy? What should we be measuring and not measuring? Are the right people having the right measurement discussions? Performance measurement is a dynamic process that calls for an awareness of the balance necessary between seemingly disparate ideas: the technical and the social aspects of performance measurement. For example, you need technology to manage the flood of data, but you must make sure that it supports the people who will be making decisions and taking action crucial to your organization's success. This book shows you how to design that technical-social balance into your measurement system. While it is urgent to start taking action now, transforming your organization's performance measurement system will take time. Transforming Performance Measurement gives you assessment tools to gauge where you are now and a roadmap for moving, with little or no disruption, to a more "transformational" and mature measurement system. The book also provides 34 TMAPs, Transformational Measurement Action Plans, which suggest both well-accepted and "emergent" measures (in areas such as marketing, human resources, customer service, knowledge management, productivity, information technology, research and development, costing, and more) that you can use right away. In the end, you get what you measure. If you measure the wrong things, you will take your company farther and farther away from its mission and strategic goals. Transforming Performance

Measurement tells you not only what to measure, but how to do it -- and in what context -- to make a truly transformational difference in your enterprise.

Surveys the theory and history of the alternating direction method of multipliers, and discusses its applications to a wide variety of statistical and machine learning problems of recent interest, including the lasso, sparse logistic regression, basis pursuit, covariance selection, support vector machines, and many others.

The first of its kind—a Value Stream Mapping book written for those in service and office environments who need to streamline operations Value Stream Mapping is a practical, how-to guide that helps decision-makers improve value stream efficiency in virtually any setting, including construction, energy, financial service, government, healthcare, R&D, retail, and technology. It gives you the tools to address a wider range of important VSM issues than any other such book, including the psychology of change, leadership, creating teams, building consensus, and charter development. Karen Martin is principal consultant for Karen Martin & Associates, LLC, instructor for the University of California, San Diego's Lean Enterprise program, and industry advisor to the University of San Diego's Industrial and Systems Engineering program. Mike Osterling provides support and leadership to manufacturing and non-manufacturing organizations on their Lean Transformation Journey. In a continuous improvement leadership role for six years, Mike played a key role in Square D Company's lean transformation in the 1990s.

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A practical approach to business transformation Fit for Growth\* is a unique approach to business transformation that explicitly connects growth strategy with cost management and organization restructuring. Drawing on 70-plus years of strategy consulting experience and in-depth research, the experts at PwC's Strategy& lay out a winning framework that helps CEOs and senior executives transform their organizations for sustainable, profitable growth. This approach gives structure to strategy while promoting lasting change. Examples from Strategy&'s hundreds of clients illustrate successful transformation on the ground, and illuminate how senior and middle managers are able to take ownership and even thrive during difficult periods of transition. Throughout the Fit for Growth process, the focus is on maintaining consistent high-value performance while enabling fundamental change. Strategy& has helped major clients around the globe achieve significant and sustained results with its research-backed approach to restructuring and cost reduction. This book provides practical guidance for leveraging that expertise to make the choices that allow companies to: Achieve growth while reducing costs Manage transformation and transition productively Create lasting competitive advantage Deliver reliable, high-value performance Sustainable success is founded on efficiency and high performance. Companies are always looking to do more with less, but their efforts often work against them in the long run. Total business

transformation requires total buy-in, and it entails a series of decisions that must not be made lightly. The Fit for Growth approach provides a clear strategy and practical framework for growth-oriented change, with expert guidance on getting it right. \*Fit for Growth is a registered service mark of PwC Strategy& Inc. in the United States

A no-nonsense plan that has been proven and tested by more than 300,000 people in 154 countries. Whether you want to shed 10 pounds or 100, whether you want to build muscle or just look more toned, this book is the original “bible of fitness” that shows you how to get permanent results the safe, healthy, and natural way. Do you want to shed fat and sculpt a new body shape at the same time? Do you want a program without gimmicks, hype, or quick fixes? Do you want a program guaranteed to work, no matter how old you are or what kind of shape you’re in now? For twenty-five years, industry veteran and bestselling author Tom Venuto has built a reputation as one of the world’s most respected fat-loss experts. In *Burn the Fat, Feed the Muscle*—known by fans as “the bible of fat loss”—Tom reveals the body transformation secrets of the leanest people in the world. This is not a diet and it’s not just a weight-loss program; this is a breakthrough system to change your life and get you leaner, stronger, fitter, and healthier with the latest discoveries in exercise and nutrition science. Inside, you’ll discover:

- The simple but powerful LEAN formula, revealing the four crucial elements of body transformation success.
- The New Body 28 (TNB-28): a four-week training plan for sculpting lean muscle, plus a quick start primer workout perfect for beginners
- A lifestyle program that’s more flexible and easier than ever to follow, even if you are busy, have dietary restrictions, or have never worked out before.
- The motivation strategies it takes to stick with your plan.

*Burn the Fat, Feed the Muscle* is not about getting as ripped as a fitness model or becoming a bodybuilder like Tom did (unless you want to); it’s about using their secrets to achieve your own personal goals. You are sure to call it your fitness bible for many years to come.

This book provides a complete and comprehensive reference/guide to Pyomo (Python Optimization Modeling Objects) for both beginning and advanced modelers, including students at the undergraduate and graduate levels, academic researchers, and practitioners. The text illustrates the breadth of the modeling and analysis capabilities that are supported by the software and support of complex real-world applications. Pyomo is an open source software package for formulating and solving large-scale optimization and operations research problems. The text begins with a tutorial on simple linear and integer programming models. A detailed reference of Pyomo's modeling components is illustrated with extensive examples, including a discussion of how to load data from data sources like spreadsheets and databases. Chapters describing advanced modeling capabilities for nonlinear and stochastic optimization are also included. The Pyomo software provides familiar modeling features within Python, a powerful dynamic programming language that has a very clear, readable syntax and intuitive object orientation. Pyomo includes Python classes for defining sparse sets,

parameters, and variables, which can be used to formulate algebraic expressions that define objectives and constraints. Moreover, Pyomo can be used from a command-line interface and within Python's interactive command environment, which makes it easy to create Pyomo models, apply a variety of optimizers, and examine solutions. The software supports a different modeling approach than commercial AML (Algebraic Modeling Languages) tools, and is designed for flexibility, extensibility, portability, and maintainability but also maintains the central ideas in modern AMLs.

Deliver unprecedented customer value and seize your competitive edge with a transformative digital supply network. Digital tech has disrupted life and business as we know it, and supply chain management is no exception. But how exactly does digital transformation affect your business? What are the breakthrough technologies and their capabilities you need to know about? How will digital transformation impact skills requirements and work in general? Do you need to completely revamp your understanding of supply chain management? And most importantly: How do you get started? Digital Supply Networks provides clear answers to these and many other questions. Written by an experienced team comprised of Deloitte consultants and leading problem-driven scholars from a premier research university, this expert guide leads you through the process of improving operations building supply networks, increasing revenue, reimagining business models, and providing added value to customers, stakeholders, and society. You'll learn everything you need to know about: Stages of development, roles, capabilities, and the benefits of DSN Big data analytics including its attributes, security, and authority Machine learning, Artificial Intelligence, Blockchain, robotics, and the Internet of Things Synchronized planning, intelligent supply, and digital product development Vision, attributes, technology, and benefits of smart manufacturing, dynamic logistics, and fulfillment A playbook to guide the digital transformation journey Drawing from real world-experience and problem-driven academic research, the authors provide an in-depth account of the transformation to digitally connected supply networks. They discuss the limitations of traditional supply chains and the underlying capabilities and potential of digitally-enabled supply flows. The chapters burst with expert insights and real-life use cases grounded in tomorrow's industry needs. Success in today's hyper-competitive, fast-paced business landscape, characterized by the risk of black swan events, such as the 2020 COVID-19 global pandemic, requires the reimagining and the digitalization of complex demand-supply systems, more collaborative and connected processes, and smarter, more dynamic data-driven decision making?which can only be achieved through a fully integrated Digital Supply Network.

Supply Chain Analytics introduces the reader to data analytics and demonstrates the value of their effective use in supply chain management. By describing the key supply chain processes through worked examples, and the descriptive, predictive and prescriptive analytic methods that can be applied to bring about improvements to those processes, the book presents a more comprehensive learning experience for the

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reader than has been offered previously. Key topics are addressed, including optimisation, big data, data mining and cloud computing. The author identifies four core supply chain processes – strategy, design, execution and people – to which the analytic techniques explained can be applied to ensure continuous improvement. Pedagogy to aid learning is incorporated throughout, including an opening section for each chapter explaining the learnings designed for the chapter; worked examples illustrating how each analytic technique works, how it is applied and what to be careful of; tables, diagrams and equations to help ‘visualise’ the concepts and methods covered; chapter case studies; and end-of-chapter review questions and assignment tasks. Providing both management expertise and technical skills, which are essential to decision-makers in the supply chain, this textbook should be essential reading for advanced undergraduate and postgraduate students of supply chain analytics, supply chain leadership, and supply chain and operations management. Its practice-based and applied approach also makes it valuable for operating supply chain practitioners and those studying for professional qualifications. Online resources include chapter-by-chapter PowerPoint slides, tutorial exercises, written assignments and a test bank of exam questions.

Across a range of industries, once-leading companies are in trouble: Walmart, IBM, Pfizer, HP, and The Gap to name a few. But others are thriving. The difference is how the company’s leaders view their supply chain: Is it just about cutting cost or do they see its hidden tools for outperforming the competition? Steve Jobs, upon returning to Apple in 1997, focused on transforming the supply chain. He hired Tim Cook--and the company sped up the development of new products, getting them into consumers' hands faster. The rest is history. While competitors were shutting stores, Zara’s highly responsive supply chain made it the most valued company in the retail space and its founder, the richest man in Europe. Showcasing real solutions learned from true success stories like these and many others, *The Supply Chain Revolution* provides for business leaders the secrets to succeeding in a disruptive world. They will learn to:

- Make alliances more successful
- Simplify and debottleneck the supply chain
- Boost retail success by managing store investment
- Improve customer satisfaction and increase revenue
- And more!

Every year, more businesses fail because of their old-school views toward cutting costs, and they usually begin with the supply chain. Don’t go down with that ship! Discover how the right supply chain can actually help you thrive.

The book is a collection of studies dedicated to different perspectives of three dimensions or pillars of the sustainability of supply chain and supply chain management - economic, environmental, and social - and other aspects related to performance evaluation, optimization, and modelling of and for sustainable supply chain management, and thus presents another valuable contribution to sustainable development and sustainable way of life.

The digital era’s new consumer demands a new approach to PR. *Inbound PR* is the handbook that can transform your agency’s business. Today’s customer is fundamentally different, and traditional PR strategies are falling by the wayside. Nobody wants to feel “marketed to;” we want to make our own choices based on our own research and experiences online. When problems arise, we demand answers on social media, directly engaging the company in front of a global audience. We are the most empowered, sophisticated customer base in the history of PR, and PR professionals must draw upon an enormous breadth of skills and techniques to serve their clients’ interests. Unfortunately, those efforts are becoming increasingly ephemeral and difficult to track using traditional metrics. This book merges content and measurement to give today’s PR agencies a new way to build brands, evaluate performance and track ROI. The ability to reach the new consumer, build the relationship, and quantify the ROI of PR services allows you to develop an inbound business and the internal capabilities to meet and exceed the needs of the most demanding client. In this digital age of constant contact and worldwide platforms, it’s the only way to sustainably grow your business and expand your reach while bolstering your effectiveness on any platform. This book shows you what you

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need to know, and gives you a clear framework for putting numbers to reputation. Build brand awareness without “marketing to” the audience Generate more, higher-quality customer or media leads Close the deal and nurture the customer or media relationship Track the ROI of each stage in the process Content is the name of the game now, and PR agencies must be able to prove their worth or risk being swept under with obsolete methods. Inbound PR provides critical guidance for PR growth in the digital era, complete with a practical framework for stimulating that growth.

Achieving Competitive Advantage Today's corporate leaders are under increasing pressure to deliver differentiated, lasting performance, fast. Industry 4.0 is driving new business models, with competitors becoming more numerous, more formidable, and more global. This puts profitability at risk as whole supply chains shift in industries. By placing customer value at the heart of their businesses, through a demand-driven digital supply chain, Total Value Optimization (TVO) goes beyond traditional approaches to ensure your company not only survives, but thrives "Steven Bowen provides a clear pathway to transform your supply chain into the ultimate competitive weapon. The Total Value Optimization (TVO) framework, resting on a foundation of data analytics, is the best approach we have seen to achieve integrated supply chain excellence in logistics, operations, and procurement." --J. Paul Dittmann, Ph.D. Executive Director, Global Supply Chain Institute, University of Tennessee "After applying TVO across three corporations, both public and private equity owned, we generated \$290 million in EBITDA, \$310 million in cash, and growth through improved customer responsiveness. Every company and CEO should consider implementing TVO." --James R. Voss, CEO Vectra "Grounded in data analytics, Total Value Optimization is essential for companies looking to survive and thrive in today's fast-paced and ever-changing business environment. Steve Bowen's book offers a solid framework for executives in search of an engaging, thoughtful, and comprehensive approach toward achieving supply chain excellence."--John D. Baumann, President and CEO, Colony Brands, Inc.

How do you turn website visitors into customers? Conversion Optimization offers practical advice on how to persuade visitors to make a buying decision -- without driving them away through data overload or tedious navigation. You'll learn how to use marketing principles, design, usability, and analytics on your site to increase your buyer-to-visitor ratio, whether you're involved with marketing or designing a large ecommerce site, or managing a modest online operation. Based on the authors' broad experience in helping businesses attract online customers, this book addresses every aspect of the process, from landing visitors to finalizing the sale. You'll learn several techniques for blending successful sales approaches with the particular needs of the people you want to attract. Are you ready to do what it takes to get a double-digit conversion rate? Explore case studies involving significant conversion rate improvements Walk through different stages of a sale and understand the value of each Understand your website visitors through persona creation Connect with potential customers and guide them toward a conversion Learn how to deal with FUDs -- customer fears, uncertainties, and doubts Examine the path that visitors take from landing page to checkout Test any change you make against your original design "The Web is unique in its ability to deliver this almost improbable win-win: You can increase revenue AND make your customers happy. Yet most websites stink. Worry not, Khalid and Ayat to the rescue! Buy this book to follow their practical advice on how to create high converting websites that your visitors love."--Avinash Kaushik, author of Web Analytics 2.0 and Web Analytics: An Hour A Day (both Sybex)

A powerful call to action, Customer Centricity upends some of our most fundamental beliefs about customer service, customer relationship management, and customer lifetime value. Despite what the old adage says, the customer is not always right. Even companies that can seemingly do no wrong—like the coffeehouse giant Starbucks—have only recently started to figure this out. Starbucks is one of many

companies that has successfully executed a pivot that puts the company in a customer-centric mindset, an approach that Wharton professor Peter Fader describes in *Customer Centricity*. Fader advocates that in the world of customer centricity, there are good customers ... and then there is pretty much everybody else. In a new preface and afterword to *Customer Centricity*, Fader reflects on how the landscape has changed over nearly a decade since he first proposed that businesses radically rethink how they relate to customers. Using examples from Starbucks, Nordstrom, and more, Fader provides insights to help you understand: Why customer centricity is the new model for success in today's data-driven environment. How the ideas of brand equity and customer asset value help us understand what kinds of companies naturally lend themselves to the customer-centric model and which ones don't; Why the traditional models for determining the value of individual customers are flawed; How executives can use customer lifetime value (CLV) and other customer-centric data to make smarter decisions about their companies; How the well-intended idea of customer relationship management (CRM) lost its way—and how your company can properly put CRM to use; How customer centricity will help you realign your performance metrics, product development, customer relationship management and organization to make sure you focus directly on the needs of your most valuable customers and increase profits for the long term. ALSO AVAILABLE: Once Fader convinces you of the value of customer centricity in this book, *The Customer Centricity Playbook*, with Sarah Toms, will show you where to get started to bring it to the forefront of your organization. THE WHARTON EXECUTIVE ESSENTIALS SERIES The Wharton Executive Essentials series from Wharton School Press brings the ideas of the Wharton School's thought leaders to you wherever you are. Inspired by Wharton's Executive Education program, each book is authored by globally renowned faculty and filled with real-life business examples and actionable advice. Wharton Executive Essentials guides offer a quick-reading, penetrating, and comprehensive summary of the knowledge leaders need to excel in today's competitive business environment and capture tomorrow's opportunities.

The managed flow of goods and information from raw material to final sale also known as a "supply chain" affects everything--from the U.S. gross domestic product to where you can buy your jeans. The nature of a company's supply chain has a significant effect on its success or failure--as in the success of Dell Computer's make-to-order system and the failure of General Motor's vertical integration during the 1998 United Auto Workers strike. *Supply Chain Integration* looks at this crucial component of business at a time when product design, manufacture, and delivery are changing radically and globally. This book explores the benefits of continuously improving the relationship between the firm, its suppliers, and its customers to ensure the highest added value. This book identifies the state-of-the-art developments that contribute to the success of vertical tiers of suppliers and relates these developments to the capabilities that small and medium-sized manufacturers must have to be viable participants in this system. Strategies for attaining these capabilities through manufacturing extension centers and other technical assistance providers at the national, state, and local level are suggested. This book identifies action steps for small and medium-sized manufacturers--the "seed corn" of business start-up and development--to improve supply chain management. The book examines supply chain models from consultant firms, universities, manufacturers, and associations. Topics include the roles of suppliers and other supply chain participants, the rise of outsourcing, the importance of information management, the natural tension between buyer and seller, sources of assistance to small and medium-sized firms, and a host of other issues. *Supply Chain Integration* will be of interest to industry policymakers, economists, researchers, business leaders, and forward-thinking executives.

Organizations need to constantly innovate and improve products and services to maintain a strong competitive position in the

market place. The vehicle used by organizations for such constant reinvention is a business transformation program. This book illustrates a tested program management roadmap along with the supporting comprehensive frameworks to successfully execute business transformation programs, formulated strategies, and strategic initiatives. It outlines the steps to successfully transform any business and deliver tangible business outcomes. This breakthrough work establishes the linkage between strategy formulation and strategy execution through the program management discipline. It depicts how program management integrates strategy, people, process, technology, structure, and measurement on cross-functional initiatives. The author details the processes, techniques, and tools that a program management team can customize and easily implement on any type of strategic initiative within the private or public sector environment to deliver and sustain the expected business outcomes and benefits. This book discusses the ten mandatory steps (or roadmap) needed to lead complex, business transformation programs to success. It showcases program management best practices and lessons learned through real-world case studies spanning different industry sectors and functional domains. Transforming Business with Program Management will equip executives, general managers, and program managers with the core skills necessary to effectively plan and implement business transformation strategies that drive sweeping business change and innovation.

Optimarketing is about optimizing every major aspect of your marketing. In "Optimarketing: Marketing Optimization to Electrify Your Business," Robert Rosenthal shares lessons learned from thousands of marketing tests, dozens of record-breaking campaigns, and more than a century of marketing history. Readers are treated to more than 75 original essays and 12 case examples on what it genuinely takes to optimize marketing results. Rosenthal, founder of the award-winning Contenteurs marketing agency, reveals:

- \* A characteristic the best marketers have in common
- \* What it took to achieve tenfold response rate improvement for a Fortune 1,000 marketer
- \* The marketing component that matters most when swinging for the fences
- \* How innovators optimize every major marketing element
- \* What great marketing campaigns have in common
- \* Organic ways to grow groundbreaking marketing ideas
- \* The marketing technique that almost always raises response rates
- \* How to easily and quickly run high-impact marketing tests
- \* Tips on rapidly evolving your optimal marketing mix
- \* How to turn your website into a bigger revenue driver
- \* Techniques to beat successful marketing approaches in measurable terms
- \* What it takes to optimize your marketing content across media - including social
- \* Strategies and tactics to optimize lead generation and one-step selling
- \* What every marketer should know about concepts, copy, and graphic design
- \* How to build a reliable "marketing machine"
- \* A special section, "The Mind of the Optimarketer"

"Optimarketing: Marketing Optimization to Electrify Your Business" is required reading for everyone out to optimize their marketing. Discover how to transform your marketing outcomes, run the most profitable marketing of your career, and make your work more fulfilling.

"We finally have the definitive treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document." —Soumith Chintala, co-creator of PyTorch

Key Features Written by PyTorch's creator and key contributors

- Develop deep learning models in a familiar Pythonic way
- Use PyTorch to build an image classifier for cancer

detection Diagnose problems with your neural network and improve training with data augmentation Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning without sacrificing advanced features. It's great for building quick models, and it scales smoothly from laptop to enterprise. Deep Learning with PyTorch teaches you to create deep learning and neural network systems with PyTorch. This practical book gets you to work right away building a tumor image classifier from scratch. After covering the basics, you'll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more sophisticated. All code samples are easy to explore in downloadable Jupyter notebooks. What You Will Learn Understanding deep learning data structures such as tensors and neural networks Best practices for the PyTorch Tensor API, loading data in Python, and visualizing results Implementing modules and loss functions Utilizing pretrained models from PyTorch Hub Methods for training networks with limited inputs Sifting through unreliable results to diagnose and fix problems in your neural network Improve your results with augmented data, better model architecture, and fine tuning This Book Is Written For For Python programmers with an interest in machine learning. No experience with PyTorch or other deep learning frameworks is required. About The Authors Eli Stevens has worked in Silicon Valley for the past 15 years as a software engineer, and the past 7 years as Chief Technical Officer of a startup making medical device software. Luca Antiga is co-founder and CEO of an AI engineering company located in Bergamo, Italy, and a regular contributor to PyTorch. Thomas Viehmann is a Machine Learning and PyTorch speciality trainer and consultant based in Munich, Germany and a PyTorch core developer. Table of Contents PART 1 - CORE PYTORCH 1 Introducing deep learning and the PyTorch Library 2 Pretrained networks 3 It starts with a tensor 4 Real-world data representation using tensors 5 The mechanics of learning 6 Using a neural network to fit the data 7 Telling birds from airplanes: Learning from images 8 Using convolutions to generalize PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER 9 Using PyTorch to fight cancer 10 Combining data sources into a unified dataset 11 Training a classification model to detect suspected tumors 12 Improving training with metrics and augmentation 13 Using segmentation to find suspected nodules 14 End-to-end nodule analysis, and where to go next PART 3 - DEPLOYMENT 15 Deploying to production

“... a can-do business strategy approach for all supply chain managers and business leaders”. - MJ Park, Supply Chain Team Leader, GM Korea. “... a rare book on supply chain strategy and a must read for start-ups”. - YH Li, Supply Chain Manager, Shanghai GM. “Shawn Paul represents the best of what global business can be. As someone who has a deep understanding of engineering and regulatory processes and challenges across the US, Asia and EU, he is able to identify collaborative relationships others overlook.... Shawn Paul is expanding the way business gets done and reaches out across organizational and geographic boundaries to ensure that the best solutions find their way to market and the customers who need them. A true global thinker,

innovator and leader.” - Mark Roser, Innovation & NPD consultant, Founder @ Open Innovators. “[Shawn Paul] ... His attention to detail, ability in understanding execution timing, place him in a very special group of project managers. His experience in China and Korea lend credence to his ability to work at a global perspective.” - Bob Conn, Operations Manager, General Motors.

“[Shawn Paul] ... a real problem solver with a calm, distinct character that’s a rare find in the industry. Shawn has proven his capability of managing high performance teams. He is a leader and a mentor to many.” - Mike Dickey, Thyssen Krupp.

Thoroughly revised and updated, a detailed guide to becoming a private detective furnishes practical information and advice on how to earn one's P.I. license and explains the techniques of pre-employment research, tenant screening, adoption searches, due diligence searches, skip tracing, and more. Original.

Proven HR strategies that can have a real impact on organizational success This book demonstrates how some of the world's most admired and prominent organizations are redefining HR leadership by using evidence-based change to inform human capital decisions that optimize efficiency, effectiveness and strategic impact. The authors present the five foundational principles to the new HR decision science: Logic-driven analytics, segmentation, risk leverage, synergy and integration and optimization. Includes practical suggestions and approaches to help executives put the book's principles into action Contains insight based on the experiences of leading global organization such as PNC Bank, CME Group, Royal Bank of Scotland, Deutsche Telekom and Shanda Interactive Entertainment Features in-depth case studies of 6 international companies: Coca-Cola, Khazanah Nasional Berhad, IBM, Ameriprise Financial, Royal Bank of Canada and Royal Bank of Scotland This groundbreaking book reveals a new approach to deliver sustainable change and business results. It is enhanced with success stories from leading companies that engage leadership and involve employees in ways that make a lasting impact on their companies.

Data in all domains is getting bigger. How can you work with it efficiently? Recently updated for Spark 1.3, this book introduces Apache Spark, the open source cluster computing system that makes data analytics fast to write and fast to run. With Spark, you can tackle big datasets quickly through simple APIs in Python, Java, and Scala. This edition includes new information on Spark SQL, Spark Streaming, setup, and Maven coordinates. Written by the developers of Spark, this book will have data scientists and engineers up and running in no time. You’ll learn how to express parallel jobs with just a few lines of code, and cover applications from simple batch jobs to stream processing and machine learning. Quickly dive into Spark capabilities such as distributed datasets, in-memory caching, and the interactive shell Leverage Spark’s powerful built-in libraries, including Spark SQL, Spark Streaming, and MLlib Use one programming paradigm instead of mixing and matching tools like Hive, Hadoop, Mahout, and Storm Learn how to deploy interactive, batch, and streaming applications Connect to data sources including HDFS, Hive, JSON, and S3 Master advanced topics like data partitioning and shared variables

From news and speeches to informal chatter on social media, natural language is one of the richest and most underutilized sources of data. Not only does it come in a constant stream, always changing and adapting in context; it also contains information that is not conveyed by traditional data sources. The key to unlocking natural language is through the creative application of text

analytics. This practical book presents a data scientist's approach to building language-aware products with applied machine learning. You'll learn robust, repeatable, and scalable techniques for text analysis with Python, including contextual and linguistic feature engineering, vectorization, classification, topic modeling, entity resolution, graph analysis, and visual steering. By the end of the book, you'll be equipped with practical methods to solve any number of complex real-world problems. Preprocess and vectorize text into high-dimensional feature representations Perform document classification and topic modeling Steer the model selection process with visual diagnostics Extract key phrases, named entities, and graph structures to reason about data in text Build a dialog framework to enable chatbots and language-driven interaction Use Spark to scale processing power and neural networks to scale model complexity

Delve into industrial digital transformation and learn how to implement modern business strategies powered by digital technologies as well as organization and cultural optimization Key Features Identify potential industry disruptors from various business domains and emerging technologies Leverage existing resources to identify new avenues for generating digital revenue Boost digital transformation with cloud computing, big data, artificial intelligence (AI), and the Internet of Things (IoT) Book Description Digital transformation requires the ability to identify opportunities across industries and apply the right technologies and tools to achieve results. This book is divided into two parts with the first covering what digital transformation is and why it is important. The second part focuses on how digital transformation works. After an introduction to digital transformation, you will explore the transformation journey in logical steps and understand how to build business cases and create productivity benefit statements. Next, you'll delve into advanced topics relating to overcoming various challenges. Later, the book will take you through case studies in both private and public sector organizations. You'll explore private sector organizations such as industrial and hi-tech manufacturing in detail and get to grips with public sector organizations by learning how transformation can be achieved on a global scale and how the resident experience can be improved. In addition to this, you will understand the role of artificial intelligence, machine learning and deep learning in digital transformation. Finally, you'll discover how to create a playbook that can ensure success in digital transformation. By the end of this book, you'll be well-versed with industrial digital transformation and be able to apply your skills in the real world. What you will learn Get up to speed with digital transformation and its important aspects Explore the skills that are needed to execute the transformation Focus on the concepts of Digital Thread and Digital Twin Understand how to leverage the ecosystem for successful transformation Get to grips with various case studies spanning industries in both private and public sectors Discover how to execute transformation at a global scale Find out how AI delivers value in the transformation journey Who this book is for This book is for IT leaders, digital strategy leaders, line-of-business leaders, solution architects, and IT business partners looking for digital transformation opportunities within their organizations. Professionals from service and management consulting firms will also find this book useful. Basic knowledge of enterprise IT and some intermediate knowledge of identifying digital revenue streams or internal transformation opportunities are required to get started with this book.

Digital technology is simultaneously friend and foe: highly disruptive, yet it cannot be ignored. Companies that fail to make use of it put themselves in the line of fire for disintermediation or even eradication. But digital technology is also the biggest opportunity to reposition incumbent product-making businesses by thinking about how they conceive, make, distribute and support the next generation of goods in the marketplace. Reinventing the Product looks at the ways traditional products are transforming into smart connected products and ecosystem

platforms at a rate much faster than most organizations think. Eric Schaeffer and David Sovie show how this reinvention is made possible: by AI and digital technologies, such as IoT sensors, blockchain, advanced analytics, cloud and edge computing. They show how to deliver truly intelligent, and potentially even autonomous, products with the more personalized and compelling experiences that today's users, consumers and enterprises expect. Reinventing the Product makes a stringent case for companies to rethink their product strategy, their innovation and engineering processes, and the entire culture to build the future generations of successful 'living products'. Featuring case studies from global organizations such as Faurecia, Signify, Symmons and Haier and interviews with thought leaders and business executives from top companies including Amazon, ABB, Tesla, Samsung and Google, this book provides practical advice for product-making companies as they embark on, or accelerate, their digitization journey.

The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered on the book's web site.

Linear programming is one of the most extensively used techniques in the toolbox of quantitative methods of optimization. One of the reasons of the popularity of linear programming is that it allows to model a large variety of situations with a simple framework. Furthermore, a linear program is relatively easy to solve. The simplex method allows to solve most linear programs efficiently, and the Karmarkar interior-point method allows a more efficient solving of some kinds of linear programming. The power of linear programming is greatly enhanced when came the opportunity of solving integer and mixed integer linear programming. In these models all or some of the decision variables are integers, respectively. In this book we provide a brief introduction to linear programming, together with a set of exercises that introduce some applications of linear programming. We will also provide an introduction to solve linear programming in R. For each problem a possible solution through linear programming is introduced, together with the code to solve it in R and its numerical solution.

An overview of the rapidly growing field of ant colony optimization that describes theoretical findings, the major algorithms, and current applications. The complex social behaviors of ants have been much studied by science, and computer scientists are now finding that these behavior patterns can provide models for solving difficult combinatorial optimization problems. The attempt to develop algorithms inspired by one aspect of ant behavior, the ability to find what computer scientists would call shortest paths, has become the field of ant colony optimization (ACO), the most successful and widely recognized algorithmic technique based on ant behavior. This book presents an overview of this rapidly growing field, from its theoretical inception to practical applications, including descriptions of many available ACO algorithms and their uses. The book first describes the translation of observed ant behavior into working optimization algorithms. The ant colony metaheuristic is then introduced and viewed in the general context of combinatorial optimization. This is followed by a detailed description and guide to all major ACO algorithms and a report on current theoretical findings. The book surveys ACO applications now in use, including

routing, assignment, scheduling, subset, machine learning, and bioinformatics problems. AntNet, an ACO algorithm designed for the network routing problem, is described in detail. The authors conclude by summarizing the progress in the field and outlining future research directions. Each chapter ends with bibliographic material, bullet points setting out important ideas covered in the chapter, and exercises. Ant Colony Optimization will be of interest to academic and industry researchers, graduate students, and practitioners who wish to learn how to implement ACO algorithms.

Achieve best practices in supply chain management Much is being written about global supply chain and sourcing options emerging in today's marketplace. Transforming supply chain management to achieve operations excellence is a mandate for many companies globally. Supply Chain Transformation walks you through this potentially difficult process and gets you started on the journey. Much more than just a how-to book, it's a why-to book that is as compelling for any business person as it is for supply chain management professionals. This book provides an invaluable road map to companies looking to transform their supply chains and organizations to achieve best practice results, beginning with guidance on how to make the case for change. Change is inevitable; growth is optional. Includes real world cases and illustrations Offers a step-by-step road map to transforming your supply chain Explains how to obtain "senior management" commitment to transformation Covers sourcing, production, and logistics process integration points with product development, marketing, sales, and finance processes as well as emerging technologies (RFID, Cloud computing, telematics, ERP, GPS/LBS & others) One of the biggest hurdles to supply chain transformation is overcoming a culture that is resistant to change. Supply Chain Transformation helps you understand the cultural resistance and evaluate where change is needed most, and then develop the game plan for overcoming resistance to achieve best practice results.

STREAMLINE OPERATIONS AND DELIVER MORE VALUE THAN EVER WITH A STRONG SUPPLY CHAIN STRATEGY "Dittmann's thoughtful approach and real-world examples make this book is an excellent resource for anyone in the supply chain field, whether a beginner or an executive seeking a better framework for the existing supply chain strategy." -- Dave Clark, Vice President, Global Customer Fulfillment, Amazon "A practical approach for developing and implementing breakthrough customer-driven integrated supply chain strategies designed to generate best in class operating and financial performance for any enterprise." -- Paul H. Trueax III, Vice President, North America Customer Services and Logistics, Colgate Palmolive "An effective supply chain strategy can have a huge impact on all of the stakeholders of the organization. This book lays out nine clear and concise steps that are very helpful as your company starts this critical process." -- Bill Hutchinson, Vice President, Global Supply Chain and Fulfillment, Dell "Dittmann's book lays out a customer-driven, case-derived nine-step method for creating and implementing a transformational supply chain strategy. It is a must-read for any supply chain professional developing or refreshing a supply chain strategy." -- Reuben Slone, Senior Vice President, Supply Chain, Walgreens

In 2020, COVID-19 starkly demonstrated the global interconnectedness of business, as it disrupted supply chains and manufacturing operations, broadly shuttered retail stores, and led to restrictions on movement and travel around the world. Other events in 2019 also showcased the undeniable globalization of business, be it from the (un)expected ramifications of Brexit to the impacts of data breaches across various industries. Riots in Hong Kong over an extradition bill also sparked huge debate and controversy, and the U.S.-China trade war also caused concern. All of these events may have largely and immediately impacted one region, yet effects reverberate across larger swathes of the globe—ultimately affecting vast areas, industries, and sectors across the international landscape. Issues in Global Business explores all of these and more, across a wide range of topics, including the on-demand economy, global manufacturing, Bitcoin, data

security, and many more. Coupled with a comprehensive overview of the business landscape around the world by Dr. Mamoun Benmamoun, an assistant professor at the Boeing Institute of International Business at Saint Louis University, this book provides students with the essential information they need to assess business practices through an international lens.

A comprehensive introduction to the tools, techniques and applications of convex optimization.

How to Conquer the Effective Frontier and Drive Improved Value in Global Operations Growth has slowed. Volatility has increased and the world is more global. Brands are defined by innovation and services. Supply chain excellence matters more than ever. It makes a difference in performance. One cannot snap their fingers and deliver supply chain success. It happens over the course of many years. It is measured in inches not miles. In this book, the author evaluates the progress of over a hundred companies over the period of 2006-2013. Success drives value. The effective supply chain makes a difference in winning a war, saving a patient, and driving commerce; but it also makes a difference in a community having clean air, potable water, and a standard of living. Mistakes are hard to overcome. Supply Chain Metrics that Matter tells this story. The book links corporate financials to supply chain maturity. In the book, the author analyzes which metrics matter. The author Lora M. Cecere is a supply chain researcher as well as an authority in supply chain technology. She helps companies gain first mover advantage. In the book, Cecere provides concrete, actionable steps to align and balance the supply chain to drive value. The book explores the crossover between supply chain efficiency and financial growth with topics such as: Outlining the metrics that matter, the metrics that don't Progress in industry sub-segment in improving inventory, cash, productivity and margin The management techniques that improve performance Sharing insights on how metrics change as the supply chain matures The roadmap to improve performance. Today, supply chains are global and dynamic. They are rapidly evolving. Companies that constantly seek out new solutions and opportunities for improvement drive differentiation. In a market where growth is stalled and many companies are stuck in driving supply chain performance, this book provides a clear, concise framework for a more modern, effective supply chain.

For multi-user PDF licensing, please contact customer service. Energy touches our lives in countless ways and its costs are felt when we fill up at the gas pump, pay our home heating bills, and keep businesses both large and small running. There are long-term costs as well: to the environment, as natural resources are depleted and pollution contributes to global climate change, and to national security and independence, as many of the world's current energy sources are increasingly concentrated in geopolitically unstable regions. The country's challenge is to develop an energy portfolio that addresses these concerns while still providing sufficient, affordable energy reserves for the nation. The United States has enormous resources to put behind solutions to this energy challenge; the dilemma is to identify which solutions are the

right ones. Before deciding which energy technologies to develop, and on what timeline, we need to understand them better. America's Energy Future analyzes the potential of a wide range of technologies for generation, distribution, and conservation of energy. This book considers technologies to increase energy efficiency, coal-fired power generation, nuclear power, renewable energy, oil and natural gas, and alternative transportation fuels. It offers a detailed assessment of the associated impacts and projected costs of implementing each technology and categorizes them into three time frames for implementation.

This easy-to-use, fast-moving tutorial introduces you to functional programming with Haskell. You'll learn how to use Haskell in a variety of practical ways, from short scripts to large and demanding applications. Real World Haskell takes you through the basics of functional programming at a brisk pace, and then helps you increase your understanding of Haskell in real-world issues like I/O, performance, dealing with data, concurrency, and more as you move through each chapter.

Now beyond its eleventh printing and translated into twelve languages, Michael Porter's *The Competitive Advantage of Nations* has changed completely our conception of how prosperity is created and sustained in the modern global economy. Porter's groundbreaking study of international competitiveness has shaped national policy in countries around the world. It has also transformed thinking and action in states, cities, companies, and even entire regions such as Central America. Based on research in ten leading trading nations, *The Competitive Advantage of Nations* offers the first theory of competitiveness based on the causes of the productivity with which companies compete. Porter shows how traditional comparative advantages such as natural resources and pools of labor have been superseded as sources of prosperity, and how broad macroeconomic accounts of competitiveness are insufficient. The book introduces Porter's "diamond," a whole new way to understand the competitive position of a nation (or other locations) in global competition that is now an integral part of international business thinking. Porter's concept of "clusters," or groups of interconnected firms, suppliers, related industries, and institutions that arise in particular locations, has become a new way for companies and governments to think about economies, assess the competitive advantage of locations, and set public policy. Even before publication of the book, Porter's theory had guided national reassessments in New Zealand and elsewhere. His ideas and personal involvement have shaped strategy in countries as diverse as the Netherlands, Portugal, Taiwan, Costa Rica, and India, and regions such as Massachusetts, California, and the Basque country. Hundreds of cluster initiatives have flourished throughout the world. In an era of intensifying global competition, this pathbreaking book on the new wealth of nations has become the standard by which all future work must be measured. Applying sophisticated management techniques to freight transport offers the potential for significant cost savings as well

as greater efficiency. Yet the inherent complexity of intermodal transport presents many challenges. This practical textbook on the operations of intermodal transport and logistics focuses on the practical concerns and the basics of operations, such as vehicles, containers, handling operations, logistics management and optimisation. All chapters are written by field specialists, and the volume includes additional chapters on economics, law and the environment to put the practical topics into context. It presents a balanced textbook for postgraduate students and also a reference text for those in industry or the public sector involved in the planning of intermodal freight transport.

This study presents options to fully unlock the world's vast solar PV potential over the period until 2050. It builds on IRENA's global roadmap to scale up renewables and meet climate goals.

A practical guide to the new economy that is transforming the way we live, work, and play. Uber. Airbnb. Amazon. Apple. PayPal. All of these companies disrupted their markets when they launched. Today they are industry leaders. What's the secret to their success? These cutting-edge businesses are built on platforms: two-sided markets that are revolutionizing the way we do business. Written by three of the most sought-after experts on platform businesses, Platform Revolution is the first authoritative, fact-based book on platform models. Whether platforms are connecting sellers and buyers, hosts and visitors, or drivers with people who need a ride, Geoffrey G. Parker, Marshall W. Van Alstyne, and Sangeet Paul Choudary reveal the what, how, and why of this revolution and provide the first "owner's manual" for creating a successful platform business. Platform Revolution teaches newcomers how to start and run a successful platform business, explaining ways to identify prime markets and monetize networks. Addressing current business leaders, the authors reveal strategies behind some of today's up-and-coming platforms, such as Tinder and SkillShare, and explain how traditional companies can adapt in a changing marketplace. The authors also cover essential issues concerning security, regulation, and consumer trust, while examining markets that may be ripe for a platform revolution, including healthcare, education, and energy. As digital networks increase in ubiquity, businesses that do a better job of harnessing the power of the platform will win. An indispensable guide, Platform Revolution charts out the brilliant future of platforms and reveals how they will irrevocably alter the lives and careers of millions.

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