

Lean Enterprise How High Performance Organizations Innovate At Scale Lean Oreilly

#1 Amazon Bestseller in Lean Management Discover the methods of lean startups that can revolutionize large organizations and their products Even in a tough economic climate, the startup business community has found a way to create innovative, game-changing products in shockingly short timeframes. So why should larger, more established companies take notice? Because they have everything to gain when they examine and adopt the strategies, tools, and attitudes of these smaller competitors. The Lean Enterprise presents a groundbreaking design for revolutionizing larger organizations, one that draws on the ingenious tenets and practices espoused by the startup community. The guidelines in this book will help companies shake the lethargy, bureaucracy, and power struggles that plague large organizations and hold them back from true innovation. At the heart of this resource is a comprehensive, practical approach based on methods, timetables, compensation, financial investment, and case studies that reveal the startup mentality. Respected thought leaders in lean startup methodologies, the authors cover successful enterprise development, development innovation labs, corporate venture arms, and acquisition and integration of startups. Essential reading for entrepreneurs, product managers, executives and directors in Forbes 2000 organizations, and board members Presents the tools and methodologies large businesses need to compete with a new generation of highly-empowered entrepreneurs Covers lean startup culture and principles and identifies the behaviors that are stunting growth at large enterprises Offers a comprehensive, practical approach for developing exciting products and services and opening vast new markets Don't be mystified by the success of startups. Master the methods of this new generation of entrepreneurs and compete on a level playing field.

Companies from startups to corporate giants face massive amounts of disruption today. Now more than ever, organizations need nimble and responsive leaders who know how to exploit the opportunities that change brings. In this insightful book, Jean Dahl, a senior executive and expert in the Lean mindset and its methods, demonstrates why you need to embrace Modern Lean principles and thinking to redefine leadership in this age of digital disruption in order to continuously evolve the Lean enterprise. Drawing on nearly three decades of corporate and consulting experience, Ms. Dahl lays out a new holistic framework for developing Modern Lean leaders. Through personal experiences and compelling real-world case studies, she explains specific steps necessary for you and your company to proactively understand and respond to change. Understand the leadership challenges Lean leaders face in our 21st century global

economy Explore the six dimensions of the Modern Lean Framework™ Learn and apply the nine steps necessary to become a Lean leader Use Modern Lean methods to build a culture of continuous learning that can be sustained and maintained within your organization Seize competitive advantage by embracing Modern Lean to build an enterprise that understands how to respond to disruption

How well does your organization respond to changing market conditions, customer needs, and emerging technologies when building software-based products? This practical guide presents Lean and Agile principles and patterns to help you move fast at scale—and demonstrates why and how to apply these methodologies throughout your organization, rather than with just one department or team. Through case studies, you'll learn how successful enterprises have rethought everything from governance and financial management to systems architecture and organizational culture in the pursuit of radically improved performance. Adopting Lean will take time and commitment, but it's vital for harnessing the cultural and technical forces that are accelerating the rate of innovation. Discover how Lean focuses on people and teamwork at every level, in contrast to traditional management practices Approach problem-solving experimentally, by exploring solutions, testing assumptions, and getting feedback from real users Lead and manage large-scale programs in a way that empowers employees, increases the speed and quality of delivery, and lowers costs Learn how to implement ideas from the DevOps and Lean Startup movements even in complex, regulated environments

"The P-51 Mustang—perhaps the finest piston engine fighter ever built—was designed and put into flight in just a few months. Specifications were finalized on March 15, 1940; the airfoil prototype was complete on September 9; and the aircraft made its maiden flight on October 26. Now that is a lean development process!" —Allen Ward and Durward Sobek, commenting on the development of the P-51 Mustang and its exemplary use of trade-off curves. Shingo Research and Professional Publication Award recipient, 2008 Despite attempts to interpret and apply lean product development techniques, companies still struggle with design quality problems, long lead times, and high development costs. To be successful, lean product development must go beyond techniques, technologies, conventional concurrent engineering methods, standardized engineering work, and heavyweight project managers. Allen Ward showed the way. In a truly groundbreaking first edition of Lean Product and Process Development, Ward delivered -- with passion and penetrating insights that cannot be found elsewhere -- a comprehensive view of lean principles for developing and sustaining product and process development. In the second edition, Durward Sobek, professor of Mechanical and Industrial Engineering at Montana State University—and one of Ward's premier students—edits and reorganizes the original text to make it more accessible and actionable. This new edition builds on the first one by: Adding five in-depth and inspiring case studies. Including insightful new examples and illustrations. Updating concepts and tools based on

recent developments in product development. Expanding the discussion around the critical concept of set-based concurrent engineering. Adding a more detailed table of contents and an index to make the book more accessible and user-friendly. The True Purpose of Product Development Ward's core thesis is that the very aim of the product development process is to create profitable operational value streams, and that the key to doing so predictably, efficiently, and effectively is to create useable knowledge. Creating useable knowledge requires learning, so Ward also creates a basic learning model for development. But Ward not only describes the technical tools needed to make lean product and process development actually work. He also delineates the management system, management behaviors, and mental models needed. In this breakthrough text, Ward: Asks fundamental questions about the purpose and "value added" in product development so you gain a crystal clear understanding of essential issues. Shows you how to find the most common forms of "knowledge waste" that plagues product development. Identifies four "cornerstones" of lean product development gleaned from the practices of successful companies like Toyota and its partners, and explains how they differ from conventional practices. Gives you specific, practical recommendations for establishing your own lean development processes. Melds observations of effective teamwork from his military background, engineering fundamentals from his education and personal experience, design methodology from his research, and theories about management and learning from his study of history and experiences with customers. Changes your thinking forever about product development.

This publication is in collaboration with the University of Buckingham and is the result of a combined research and review process carried out by the three Editors who belongs to the University of Ferrara, Italy, the University of Buckingham, UK and Swansea University, UK. The book deepens the debate about the lean enterprise from both an academic and a professional management perspective. It thus provides the reader with a sound understanding of the modern lean enterprise and its current evolution. A range of innovative topics are covered, with individual chapters addressing the combinations of lean with hoshin kanri, green management, IT, organizational learning, flow accounting, system thinking, problem solving, internationalization aspects, luxury industry, and product innovation. Since the term "lean" first entered contemporary operations management language in 1990 to describe a set of practices proven to deliver superior performance over mass production systems, the lean approach to waste reduction and value generation has moved from vehicle production to other manufacturing sectors. It has reshaped the support functions of manufacturing businesses and has evolved from private industry into the public sector. Lean thinking is now a dominant model of operations management and has brought with it a new language and toolbox.

A transformative system that shows leaders how to rethink their strategies, retool their capabilities, and revitalize their

businesses for stronger, longer-lasting success. There's a learning curve to running any successful business. But when leaders begin to rely on past achievements or get stuck in old thinking and practices that no longer work, they need to take a step back—and unlearn. This innovative and actionable framework from executive coach Barry O'Reilly shows leaders how to break the cycle and move away from once-useful mindsets and behaviors that were effective in the past but are no longer relevant in the current business climate and may now stand in the way of success. With this simple but powerful three-step system, leaders can: 1. Unlearn the behaviors and mindsets that keep them and their businesses from moving forward. 2. Relearn the skills, strategies, and innovations that are transforming the world every day. 3. Break through old habits and thinking by opening up to new ideas, perspectives, and resources. Good leaders know they need to continuously learn. But great leaders know when to unlearn the past to succeed in the future. This book shows them the way.

Basic Optics: Principles and Concepts addresses in great detail the basic principles of the science of optics, and their related concepts. The book provides a lucid and coherent presentation of an extensive range of concepts from the field of optics, which is of central relevance to several broad areas of science, including physics, chemistry, and biology. With its extensive range of discourse, the book's content arms scientists and students with knowledge of the essential concepts of classical and modern optics. It can be used as a reference book and also as a supplementary text by students at college and university levels and will, at the same time, be of considerable use to researchers and teachers. The book is composed of nine chapters and includes a great deal of material not covered in many of the more well-known textbooks on the subject. The science of optics has undergone major changes in the last fifty years because of developments in the areas of the optics of metamaterials, Fourier optics, statistical optics, quantum optics, and nonlinear optics, all of which find their place in this book, with a clear presentation of their basic principles. Even the more traditional areas of ray optics and wave optics are elaborated within the framework of electromagnetic theory, at a level more fundamental than what one finds in many of the currently available textbooks. Thus, the eikonal approximation leading to ray optics, the Lagrangian and Hamiltonian formulations of ray optics, the quantum theoretic interpretation of interference, the vector and dyadic diffraction theories, the geometrical theory of diffraction, and similar other topics of basic relevance are presented in clear terms. The presentation is lucid and elegant, capturing the essential magic and charm of physics. All this taken together makes the book a unique text, of major contemporary relevance, in the field of optics. Avijit Lahiri is a well-known researcher, teacher, and author, with publications in several areas of physics, and with a broad range of current interests, including physics and the philosophy of science. Provides extensive and thoroughly exhaustive coverage of classical and modern optics Offers a lucid presentation in understandable language, rendering the abstract

and difficult concepts of physics in an easy, accessible way
Develops all concepts from elementary levels to advanced stages
Includes a sequential description of all needed mathematical tools
Relates fundamental concepts to areas of current research interest

Hospitals have long relied on the heroics of one brilliant nurse or doctor to save the day. Such heroics often result in temporary workarounds and quick fixes that leave not only patients and quality care at risk, but also increase costs. This is the story of an organization breaking that habit. Like a growing number of healthcare organizations around the world, ThedaCare, Inc. has been using lean thinking and the principles of the Toyota Production System to improve quality of care, reduce waste, and become more reliable. But lean thinking was incompatible with ThedaCare's old top-down, hero-based system of management. Kim Barnas, former SVP of ThedaCare, shows us how she and her team created a management system that is stable and lean, to spur continuous improvement. *Beyond Heroes* shows the reader, step by step, how ThedaCare teams developed the system, using the stories of its doctors, nurses and administrators to illustrate. The book explores each of the eight essential components of the lean system, from front-line problem solving with the scientific method to daily team huddles and creating standard work for leaders all the way to the top of an organization. Finally, the author introduces four executives from healthcare systems across North America who have implemented ThedaCare's system and share the lessons they learned along the way. *Beyond Heroes* is not just a call to action or an argument for a better healthcare system. It is a necessary roadmap through the rocky terrain ahead, one that healthcare leaders can customize to their special needs.

Lean Process Creation teaches the specific frames—the 6CON model—to look through to properly design any new process while optimizing the value-creating resources. The framing is applicable to create any process that involves people, technology, or equipment—whether the application is in manufacturing, healthcare, services, retail, or other industries. If you have a process, this approach will help. The result is 30% to 50% improvement in first-time quality, customer lead time, capital efficiency, labor productivity, and floorspace that could add up to millions of dollars saved per year. More important, it will increase both employee and customer satisfaction. The book details a case study from a manufacturing standpoint, starting with a tangible example to reinforce the 6CON model. This is the first book written from this viewpoint—connecting a realistic transformation with the detailed technical challenges, as well as the engagement of the stakeholders, each with their own bias. Key points and must-do actions are sprinkled throughout the case study to reinforce learning from the specific to the general. In this study, an empowered working team is charged with developing a new production line for a critical new product. As the story unfolds, they create an improved process that saves \$5.6 million (10x payback on upfront resource investment) over the short life cycle of the product, as well as other measurable benefits in quality, ergonomics, and delivery. To an even greater benefit, they establish a new way of working that can be applied to all future process creation activities. Some organizations have tried their version of Lean process design following a formula or cookie-cutter approach. But true Lean process design goes well beyond forcing concepts and slogans into every situation. It is purposeful, scientific, and adaptable because every situation starts with a unique current state. In addition, Lean process design

must include both the technical and social aspects, as they are essential to sustaining and improving any system. Observing the recurring problem of reworking processes that were newly launched brought the authors to the conclusion that a practical book focused on introducing the critical frames of Lean process creation was needed. This book enables readers to consider the details within each frame that must be addressed to create a Lean process. No slogans, no absolutes. Real thinking is required. This type of thinking is best learned from an example, so the authors provide this case study to demonstrate the thinking that should be applied to any process. High volume or low, simple or complex mix, manufacturing or service/transactional—the framing and thinking works. Along with the thinking, readers are enabled to derive their own future states. This is demonstrated in the story that surrounds the case study.

“Read this book to learn how to create a company as powerful as Apple.”—Guy Kawasaki, former chief evangelist of Apple
In *Escape Velocity*, Geoffrey A. Moore, author of the marketing masterwork *Crossing the Chasm*, teaches twenty-first century enterprises how to overcome the pull of the past and reorient their organizations to meet a new era of competition. The world’s leading high-tech business strategist, Moore connects the dots between bold strategies and effective execution, with an action plan that elucidates the link between senior executives and every other branch of a company. For readers of Larry Bossidy’s *Execution*, Clay Christensen’s *Innovator’s Solution*, and Gary Vaynerchuk’s *Crush It!*, and for anyone aiming for the pinnacle of business success, *Escape Velocity* is an irreplaceable roadmap to the top. While there are numerous Lean Certification programs, most companies have their own certification paths whereby they bestow expert status upon employees after they have participated in or led a certain number of kaizen events. Arguing that the number of kaizen events should not determine a person’s expert status, *The Lean Practitioner’s Field Book: Proven, Practical, Profitable and Powerful Techniques for Making Lean Really Work* outlines a true learning path for anyone seeking to understand essential Lean principles. The book includes a plethora of examples drawn from the personal experiences of its many well-respected and award-winning contributors. These experts break down Lean concepts to their simplest terms to make everything as clear as possible for Lean practitioners. A refresher for some at times, the text provides thought-provoking questions with examples that will stimulate learning opportunities. Introducing the Lean Practitioner concept, the book details the five distinct Lean Practitioner levels and includes quizzes and criteria for each level. It highlights the differences between the kaizen event approach and the Lean system level approach as well as the difference between station balancing and baton zone. This book takes readers on a journey that begins with an overview of Lean principles and culminates with readers developing professionally through the practice of self-reliance. Providing you with the tools to implement Lean tools in your organization, the book includes discussions and examples that demonstrate how to transition from traditional accounting methods to a Lean accounting system. The book outlines an integrated, structured approach identified by the acronym BASICS (baseline, analyze, suggest solutions, implement, check, and sustain), which is combined with a proven business strategy to help ensure a successful and sustainable transformation of your organization. What company doesn’t want energized workers, delighted customers, genuine efficiency, and breakthrough innovation? *The Lean Mindset* shows how lean companies really work—and how a lean mindset is the key to creating stunning products and delivering amazing services. Through cutting-edge research and case studies from leading organizations, including Spotify, Ericsson, Intuit, GE Healthcare, Pixar, CareerBuilder, and Intel, you’ll discover proven patterns for developing that mindset. You’ll see how to cultivate product teams that act like successful startups, create the kind of efficiency that attracts customers, and leverage the talents of bright, creative people. *The Poppendiecks* weave lean principles throughout this book, just as those principles must be woven throughout the fabric of your truly lean organization. Learn How To Start with an inspiring purpose, and overcome the curse of short-term thinking Energize teams by providing well-

framed challenges, larger purposes, and a direct line of sight between their work and the achievement of those purposes Delight customers by gaining unprecedented insight into their real needs, and building products and services that fully anticipate those needs Achieve authentic, sustainable efficiency without layoffs, rock-bottom cost focus, or totalitarian work systems Develop breakthrough innovations by moving beyond predictability to experimentation, beyond globalization to decentralization, beyond productivity to impact Lean approaches to software development have moved from novelty to widespread use, in large part due to the principles taught by Mary and Tom Poppendieck in their pioneering books. Now, in *The Lean Mindset*, the Poppendiecks take the next step, looking at a company where multidiscipline teams are expected to ask the right questions, solve the right problems, and deliver solutions that customers love.

Lean culture should be developed so that the goal to improve a process or business condition on a continuous basis can be achieved. Organizations with a lean culture have reaped many successful experiences in implementing lean, so it is seen as a legitimate methodology for organizations. New employees coming into an organization that has a lean culture will be taught to see, think, and feel from a lean perspective in dealing with problems in their job. Lean needs to be a cultural mindset for all for an organization to remain successful. The effort to build a lean culture relies on the support and active participation of leaders as the agents of change. Research shows that the success of a lean implementation is around 50% depending on leadership, while the remaining 30% is on finance, 10% on organization and culture, and 10% on skills and expert human resources. In general, leaders play a role in developing subordinates, problem-solving skills, and producing various continuous improvement efforts. In addition, leaders are responsible for encouraging subordinates to continuously use problem-solving tools as part of their efforts to improve their skills and deal with bigger problems. This book focuses on leadership and the tools required to support a lean initiative. Understanding the basic and valuable tools of lean provides the foundation for leaders in support of their organization initiative. Topics in the book include a description of the eight wastes, organizational level process mapping, lean metrics, and developing a future position. The author includes a discussion and samples of basic lean tools such as Kanban, standard work, and visual management. The author also describes the tools each leader needs to be successful with in creating a culture of lean thinking, including the leader task board, the process performance board, and process walk.

Outlines a revisionist approach to management while arguing against common perceptions about the inevitability of startup failures, explaining the importance of providing genuinely needed products and services as well as organizing a business that can adapt to continuous customer feedback.

DevOps is a fundamental shift in how leading edge companies are starting to manage their software and IT work. Businesses need to move more quickly than ever before, and large software organizations are applying these DevOps principles to develop new software faster than anyone previously thought possible. DevOps started in small organizations and in large organizations that had or created architectures that enabled small teams to independently develop, qualify, and deploy code. The impact on productivity is so dramatic that larger organizations with tightly coupled architectures are realizing they either need to embrace DevOps or be left behind. The biggest challenge is that they can't just empower small teams to work independently because their legacy architectures require coordinating the development, qualification, and deployment of code across hundreds of people. They need a DevOps approach that not only addresses their unique challenges, but also helps them reach an organization-wide agreement on where to start and how to scale DevOps. That is where *Starting and Scaling DevOps in the Enterprise* comes in. *Starting and Scaling DevOps in the Enterprise* is a quick, easy-to-read guide that helps structure those improvements by providing a framework that large organizations can use to understand DevOps principles in the context of their current

development processes and gain alignment across the organization for successful implementations. The book illustrates how to analyze your current development and delivery processes to ensure you gain positive momentum by implementing the DevOps practices that will have the greatest immediate impact on the productivity of your organization, with the goal of achieving continuous improvement over time.

Bill has 90 days to fix a behind-schedule IT project, or his entire department will be outsourced. Fortunately, he has the help of a prospective board member, whose "Three Ways" philosophy might just save the day.

Great user experiences (UX) are essential for products today, but designing one can be a lengthy and expensive process. With this practical, hands-on book, you'll learn how to do it faster and smarter using Lean UX techniques. UX expert Laura Klein shows you what it takes to gather valuable input from customers, build something they'll truly love, and reduce the time it takes to get your product to market. No prior experience in UX or design is necessary to get started. If you're an entrepreneur or an innovator, this book puts you right to work with proven tips and tools for researching, identifying, and designing an intuitive, easy-to-use product. Determine whether people will buy your product before you build it Listen to your customers throughout the product's lifecycle Understand why you should design a test before you design a product Get nine tools that are critical to designing your product Discern the difference between necessary features and nice-to-haves Learn how a Minimum Viable Product affects your UX decisions Use A/B testing in conjunction with good UX practices Speed up your product development process without sacrificing quality

Achieve streamlined, rapid production with enterprise-level DevOps Awarded DevOps 2017 Book of the Year, The DevOps Adoption Playbook provides practical, actionable, real-world guidance on implementing DevOps at enterprise scale. Author Sanjeev Sharma heads the DevOps practice for IBM; in this book, he provides unique guidance and insight on implementing DevOps at large organizations. Most DevOps literature is aimed at startups, but enterprises have unique needs, capabilities, limitations, and challenges; "DevOps for startups" doesn't work at this scale, but the DevOps paradigm can revolutionize enterprise IT. Deliver high-value applications and systems with velocity and agility by adopting the necessary practices, automation tools, and organizational and cultural changes that lead to innovation through rapid experimentation. Speed is an advantage in the face of competition, but it must never come at the expense of quality; DevOps allows your organization to keep both by intersecting development, quality assurance, and operations. Enterprise-level DevOps comes with its own set of challenges, but this book shows you just how easily they are overcome. With a slight shift in perspective, your organization can stay ahead of the competition while keeping costs, risks, and quality under control. Grasp the full extent of the DevOps impact on IT organizations Achieve high-value innovation and optimization with low cost and risk Exceed traditional business goals with higher product release efficiency Implement DevOps in large-scale enterprise IT environments DevOps has been one of IT's hottest trends for the past decade, and plenty of success stories testify to its effectiveness in organizations of any size, industry, or level of IT maturity, all around the world. The DevOps Adoption Playbook shows you how to get your organization on board so you can slip production into the fast lane and innovate your way to the top.

Design IT Organizations for Agility at Scale Aspiring digital businesses need overall IT agility, not just development team agility. In Agile IT Organization Design , IT management consultant and ThoughtWorks veteran Sriram Narayan shows how to infuse agility throughout your organization. Drawing on more than fifteen years' experience working with enterprise clients in IT-intensive industries, he introduces an agile approach to "Business-IT Effectiveness" that is as practical as it is valuable. The author shows how structural, political, operational, and cultural facets of organization design influence overall IT agility—and how you can promote better collaboration across diverse functions, from sales and marketing to product development, and engineering to IT operations. Through real examples, he helps you evaluate and improve organization designs that enhance autonomy, mastery, and purpose: the key ingredients for a highly motivated workforce. You'll find "close range" coverage of team design, accountability, alignment, project finance, tooling, metrics, organizational norms, communication, and culture. For each, you'll gain a deeper understanding of where your organization stands, and clear direction for making improvements. Ready to optimize the performance of your IT organization or digital business? Here are practical solutions for the long term, and for right now. Govern for value over predictability Organize for responsiveness, not lowest cost Clarify accountability for outcomes and for decisions along the way Strengthen the alignment of autonomous teams Move beyond project teams to capability teams Break down tool-induced silos Choose financial practices that are free of harmful side effects Create and retain great teams despite today's "talent crunch" Reform metrics to promote (not prevent) agility Evolve culture through improvements to structure, practices, and leadership—and careful, deliberate interventions

Learn how Lean IT can help companies deliver better customerservice and value Lean Enterprise Systems effectively demonstrates how the techniquesderived from Lean Manufacturing, combined with the thoughtfulapplication of information technology, can help all enterprisesimprove business performance and add significant value for theircustomers. The author also demonstrates how the basic concepts ofLean Manufacturing can be applied to create agile and responsiveLean IT. The book is divided into three parts that collectively explore howpeople, processes, and technology combine forces to facilitatecontinuous improvement: * Part One: Building Blocks of the Lean Enterprise sets forth theessentials of Lean. Readers discover where, when, and how Lean ITadds substantial value to the Lean Enterprise through integratedprocesses of planning, scheduling, execution, control, and decisionmaking across the full spectrum of operations. * Part Two: Building Blocks of Information Systems explores theprimary components of an enterprise information system and howthese components may be integrated to improve the flow ofinformation supporting value streams. Readers learn how informationsystems help organize and deliver knowledge when and where it'sneeded. * Part Three: Managing Change with IT demonstrates how the skillfulcombination of process and information technology improvementsempowers people to continuously improve the Lean Enterprise. Readers develop the skills to exploit emerging informationtechnology tools and change management methods, crafting a Lean ITframework-reducing waste, complexity, and lead time-while addingmeasurable value. Executives, managers, and improvement teams across a broad range ofindustries, as well as IT professionals, can apply the techniquesdescribed in this publication to improve performance, add

value, and create competitive advantage. The book's clear style and practical focus also makes it an excellent textbook for upper-level undergraduate and graduate courses in business, operations management, and business information systems.

"The Lean Entrepreneur" banishes the "Myth of the Visionary" and shows you how you can implement proven, actionable techniques to create products and disrupt existing markets on your way to entrepreneurial success. This guide combines the concepts of customer insight, rapid experimentation, and actionable data from the Lean Startup methodology to allow individuals, teams, or even entire companies to solve problems, create value, and ramp up their vision quickly and efficiently.

Winner of the 2011 Jolt Excellence Award! Getting software released to users is often a painful, risky, and time-consuming process. This groundbreaking new book sets out the principles and technical practices that enable rapid, incremental delivery of high quality, valuable new functionality to users. Through automation of the build, deployment, and testing process, and improved collaboration between developers, testers, and operations, delivery teams can get changes released in a matter of hours—sometimes even minutes—no matter what the size of a project or the complexity of its code base. Jez Humble and David Farley begin by presenting the foundations of a rapid, reliable, low-risk delivery process. Next, they introduce the “deployment pipeline,” an automated process for managing all changes, from check-in to release. Finally, they discuss the “ecosystem” needed to support continuous delivery, from infrastructure, data and configuration management to governance. The authors introduce state-of-the-art techniques, including automated infrastructure management and data migration, and the use of virtualization. For each, they review key issues, identify best practices, and demonstrate how to mitigate risks. Coverage includes

- Automating all facets of building, integrating, testing, and deploying software
- Implementing deployment pipelines at team and organizational levels
- Improving collaboration between developers, testers, and operations
- Developing features incrementally on large and distributed teams
- Implementing an effective configuration management strategy
- Automating acceptance testing, from analysis to implementation
- Testing capacity and other non-functional requirements
- Implementing continuous deployment and zero-downtime releases
- Managing infrastructure, data, components and dependencies
- Navigating risk management, compliance, and auditing

Whether you're a developer, systems administrator, tester, or manager, this book will help your organization move from idea to release faster than ever—so you can deliver value to your business rapidly and reliably.

Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

Whether a group of engineers is developing new cars, software applications, aerospace equipment, kitchen appliances, controls, sensors, or any of hundreds of different items, the process they follow is pretty much the same. Except in one company - Toyota, perhaps the most innovative and highly respected car company on the planet. What is most startling is that Toyota's product development engineers are four times as productive as their counterparts in other companies, according to a study by the National Center for Manufacturing Sciences. Most follow a linear process in developing new products. Toyota's engineers do not. As this book reveals and explains, Toyota's development engineers rely on a development paradigm that is totally different than that found in the West. Companies that are early adopters of the Toyota product development system are certain to realize tremendous advantages over their competitors. This is a change that is coming to businesses everywhere and this book shows the way. It is a must-read for anyone in management.

Winner of a Shingo Research and Professional Publication Award Information Technology is supposed to enable business performance and innovation, improve service levels, manage change, and maintain quality and stability, all while steadily reducing operating costs. Yet when an enterprise begins a Lean transformation, too often the IT department is either left out or viewed as an obstacle. What is to be done? Winner of a 2011 Shingo Research and Professional Publication Award, this book shares practical tips, examples, and case studies to help you establish a culture of continuous improvement to deliver IT operational excellence and business value to your organization. Praise for: ...will have a permanent place in my bookshelf. —Gene Kim, Chief Technology Officer, Tripwire, Inc. ... provides an unprecedented look at the role that Lean IT will play in making this revolutionary shift and the critical steps for sustained success. —Steve Castellanos, Lean Enterprise Director, Nike, Inc. Twenty years from now the firms which dominate their industries will have fully embraced Lean strategies throughout their IT organizations. —Scott W. Ambler, Chief Methodologist for Agile and Lean, IBM Rational ... a great survival manual for those needing nimble and adaptive systems. —Dr. David Labby, MD, PhD, Medical Director and Director of Clinical Support and Innovation, CareOregon ... makes a major contribution in an often-ignored but much-needed area. —John Bicheno, Program Director MS in Lean Operations, Cardiff University ... a comprehensive view into the world of Lean IT, a must read! —Dave Wilson, Quality Management, Oregon Health & Science University

Lean Production transformed the way that companies think about production and manufacturing. This book provides a new challenge. It arises from the work of the Lean Aerospace Initiative at MIT and provides a new agenda and bold vision for the aerospace industry to take it out of crisis. It also redefines and develops the concept of Lean as a framework for enterprise transformation and this will be relevant and critical for all industries and enterprises.

"This book presents emerging research-based trends in the area of global quality lean six sigma networks and analysis through an interdisciplinary approach focusing on research, cases, and emerging technologies"--Provided by publisher.

How well does your organization respond to changing market conditions, customer needs, and emerging technologies when building software-based products? This practical guide presents Lean and Agile principles and patterns to help you move fast at

scale—and demonstrates why and how to apply these paradigms throughout your organization, rather than with just one department or team. Through case studies, you'll learn how successful enterprises have rethought everything from governance and financial management to systems architecture and organizational culture in the pursuit of radically improved performance. Discover how Lean focuses on people and teamwork at every level, in contrast to traditional management practices Approach problem-solving experimentally by exploring solutions, testing assumptions, and getting feedback from real users Lead and manage large-scale programs in a way that empowers employees, increases the speed and quality of delivery, and lowers costs Learn how to implement ideas from the DevOps and Lean Startup movements even in complex, regulated environments Despite enormous investments of time and money, are we making a dent on the social and environmental challenges of our time? What if we could exponentially increase our impact? Around the world, a new generation is looking beyond greater profits, for meaningful purpose. But, unlike business, few social interventions have achieved significant impact at scale. Inspired by the modern innovation practices, popularized by bestseller *The Lean Startup*, that have fueled technology breakthroughs touching every aspect of our lives, *Lean Impact* turns our attention to a new goal - radically greater social good. Social change is far more complicated than building a new app. It requires more listening, more care, and more stakeholders. To make a lasting difference, solutions must be embraced by beneficiaries, address root causes, and include an engine that can accelerate growth to reach the scale of the need. *Lean Impact* offers bold ideas to reach audacious goals through customer insight, rapid experimentation and iteration, and a relentless pursuit of impact. Ann Mei Chang brings a unique perspective from across sectors, from her years as a tech executive in Silicon Valley to her most recent experience as the Chief Innovation Officer at USAID. She vividly illustrates the book with real stories from interviews with over 200 organizations across the US and around the world. Whether you are a nonprofit, social enterprise, triple bottom line company, foundation, government agency, philanthropist, impact investor, or simply donate your time and money, *Lean Impact* is an essential guide to maximizing social impact and scale.

Winner of a 2013 Shingo Research and Professional Publication Award This practical guide for healthcare executives, managers, and frontline workers, provides the means to transform your enterprise into a High-Quality Patient Care Business Delivery System. Designed for continuous reference, its self-contained chapters are divided into three primary sections: Defines what Lean is and includes some interesting history about Lean not found elsewhere. Describes and explains the application of each Lean tool and concept organized in their typical order of use. Explains how to implement Lean in various healthcare processes—providing examples, case studies, and valuable lessons learned This book will help to take you out of your comfort zone and provide you with new ways to extend value to your customers. It drives home the importance of the Lean Six Sigma journey. The pursuit of continuous improvement is a journey with no end. Consequently, the opportunities are endless as to what you and your organization can accomplish. Forty percent of the authors' profits from this book will be donated to help the homeless through two Baltimore charities. Praise for the book: ... well-timed and highly informative for those committed to creating deep levels of sustainable change in healthcare. — Peter B. Angood, MD, FACS, FCCM, Senior Advisor – Patient Safety, in *National Quality*

Forum ... the most practical and healthcare applicable book I have ever read on LEAN thinking and concepts. — Gary Shorb, CEO, Methodist Le Bonheur Healthcare ... well written ... an essential reference in the library of all healthcare leaders interested in performance improvement. — Lee M. Adler, DO, VP, Quality and Safety Innovation & Research, Florida Hospital, Orlando; Associate Professor, University of Central Florida College of Medicine ... a must read for all Leadership involved in healthcare. ... I can see reading this book over and over. — Brigit Zamora, BSN, RN, CPAN, CAPA, Administrative Nurse Manager, Florida Hospital, Orlando

Lean Thinking was launched in the fall of 1996, just in time for the recession of 1997. It told the story of how American, European, and Japanese firms applied a simple set of principles called 'lean thinking' to survive the recession of 1991 and grow steadily in sales and profits through 1996. Even though the recession of 1997 never happened, companies were starving for information on how to make themselves leaner and more efficient. Now we are dealing with the recession of 2001 and the financial meltdown of 2002. So what happened to the exemplar firms profiled in Lean Thinking? In the new fully revised edition of this bestselling book those pioneering lean thinkers are brought up to date. Authors James Womack and Daniel Jones offer new guidelines for lean thinking firms and bring their groundbreaking practices to a brand new generation of companies that are looking to stay one step ahead of the competition.

Is it possible to be repetitive and flexible at the same time? Using proven examples and quantifiable evidence, Lean RFS (Repetitive Flexible Supply): Putting the Pieces Together demonstrates that repetitive flexible supply (RfS) is not only possible, but that its implementation can help you reach a new level of improved performance in manufacturin

Now that we're moving from a product economy to a digital service economy, software is becoming critical for navigating our everyday lives. The quality of your service depends on how well it helps customers accomplish goals and satisfy needs. Service quality is not about designing capabilities, but about making—and keeping—promises to customers. To help you improve customer satisfaction and create positive brand experiences, this pragmatic book introduces a transdisciplinary approach to digital service delivery. Designing a resilient service today requires a unified effort across front-office and back-office functions and technical and business perspectives. You'll learn how make IT a full partner in the ongoing conversations you have with your customers. Take a unique customer-centered approach to the entire service delivery lifecycle Apply this perspective across development, operations, QA, design, project management, and marketing Implement a specific quality assurance methodology that unifies those disciplines Use the methodology to achieve true resilience, not just stability

Updated with new information, illustrations, and leadership tools, Leading the Lean Enterprise Transformation, Second Edition describes how the metrics used by Toyota drive every line item in a financial statement in the right direction. Rather than focus on Lean tools and principles, the new edition of this bestselling reference focuses on what may be the least understood and most critical aspect of a Lean transformation: the building of a Lean culture. In addition to new appendices with background information and insightful stories on Lean leadership and implementation, it includes new information on tactical organization practices, strategy deployment, and Lean culture. An inductee to IndustryWeek's Hall of Fame, George Koenigsaecker illustrates successful strategies and valuable lessons learned with case histories of U.S. leaders who have been instrumental in bringing Lean to the forefront. He explains the use of value stream analysis at the leadership

level and describes how to structure kaizen events that can improve the value stream. Organized in the chronological sequence that a leader embarking on a Lean journey would experience, the book discusses the methods used by the author during the Hon Company's successful Lean conversion, which doubled productivity, tripled revenues, and led IndustryWeek to recognize Hon as one of the "World's 100 Best Managed Firms." The book not only introduces powerful leadership tools—including strategy deployment, transformation value stream analysis, and transformation plan of care—but also arms potential change agents with the soft skills needed to define, develop, and communicate their vision. Detailing the steps required to sustain improvements, it supplies time-tested guidance for effective leadership throughout a Lean transformation in any organization.

Lean Enterprise"O'Reilly Media, Inc."

EDGE: The Agile Operating Model That Will Help You Successfully Execute Your Digital Transformation “[The authors’] passion for technology allows them to recognize that for most enterprises in the 21st century, technology is THE business. This is what really separates the EDGE approach. It is a comprehensive operating model with technology at its core.” —From the Foreword by Heidi Musser, Executive Vice President and Principal Consultant, Leading Agile; retired, Vice President and CIO, USAA Maximum innovation happens at the edge of chaos: the messy, risky, and uncertain threshold between randomness and structure. Operating there is uncomfortable but it's where organizations “invent the future.” EDGE is a set of fast, iterative, adaptive, lightweight, and value-driven tools to achieve digital transformation, and EDGE: Value-Driven Digital Transformation is your guide to using this operating model for innovation. Jim Highsmith is one of the world's leading agile pioneers and a coauthor of the Agile Manifesto. He, Linda Luu, and David Robinson know from their vast in-the-trenches experience that sustainable digital transformation requires far more than adopting isolated agile practices or conventional portfolio management. This hard, indispensable work involves changing culture and mindset, and going beyond transforming the IT department. EDGE embraces an adaptive mindset in the face of market uncertainty, a visible, value-centered portfolio approach that encourages continual value linkages from vision to detailed initiatives, incremental funding that shifts as strategies evolve, collaborative decision-making, and better risk mitigation. This guide shows leaders how to use the breakthrough EDGE approach to go beyond incremental improvement in a world of exponential opportunities. Build an organization that adapts fast enough to thrive Clear away unnecessary governance processes, obsolete “command and control” leadership approaches, and slow budgeting/planning cycles Improve collaboration when major, fast-paced responses are necessary Continually optimize investment allocation and monitoring based on your vision and goals Register your product for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details. Most business readers have heard of the Lean principles developed for factories a set of tools and ideas that have enabled companies to dramatically boost quality by reducing waste and errors producing more while using less. Yet until now, few have recognized how relevant these powerful ideas are to individuals and their daily work. Every person at

Explaining how to use Lean principles to drive innovation and strategic portfolio planning, The Innovative Lean Enterprise: Using the Principles of Lean to Create and Deliver Innovation to Customers outlines simple, yet powerful, visual Lean tools that can enhance idea generation and product development. It starts with a discussion of Lean principles and then identifies the applicable portions of Lean that can drive customer value. The book discusses customer value in the form of the benefits your customers desire. It walks you through the processes of using Lean techniques to effectively evaluate the quality of any prospective marketing opportunity and includes examples from a variety of industries, including healthcare. The text discusses value creation, reduction of waste, entrepreneurial system designer, set-based

concurrent engineering, and Lean project management. It also includes numerous examples of visual management tools as they apply to innovation to help you develop the understanding required to achieve a competitive advantage for your brand, division, or company through Lean.

The first edition of this highly acclaimed publication received a Shingo Research and Professional Publication Prize in 2009. Explaining how to create and sustain a Lean business, it followed Cogent Power's first two Lean Roadmaps along their journey. Since then, much has changed. Several members of Cogent Power's senior management have moved on, s

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